

# The Mining Journal, RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

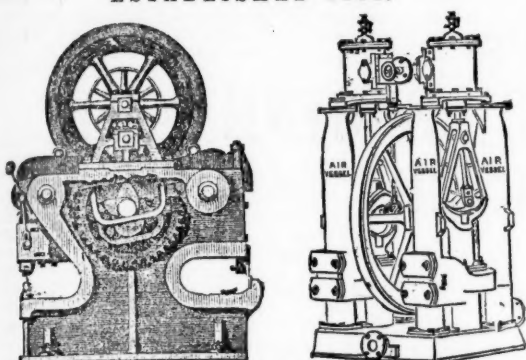
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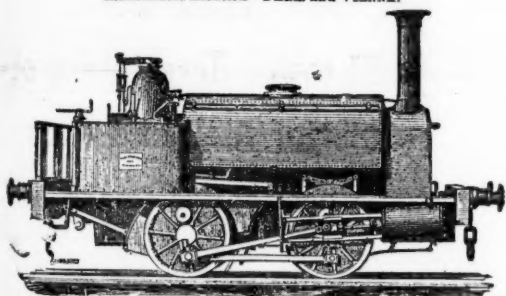
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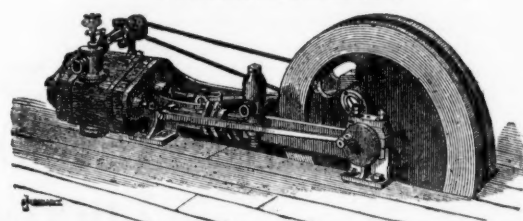
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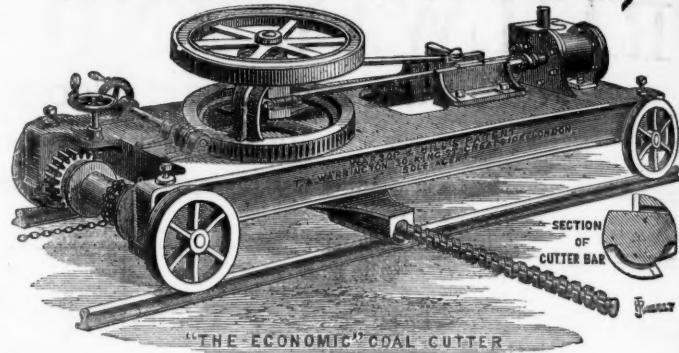
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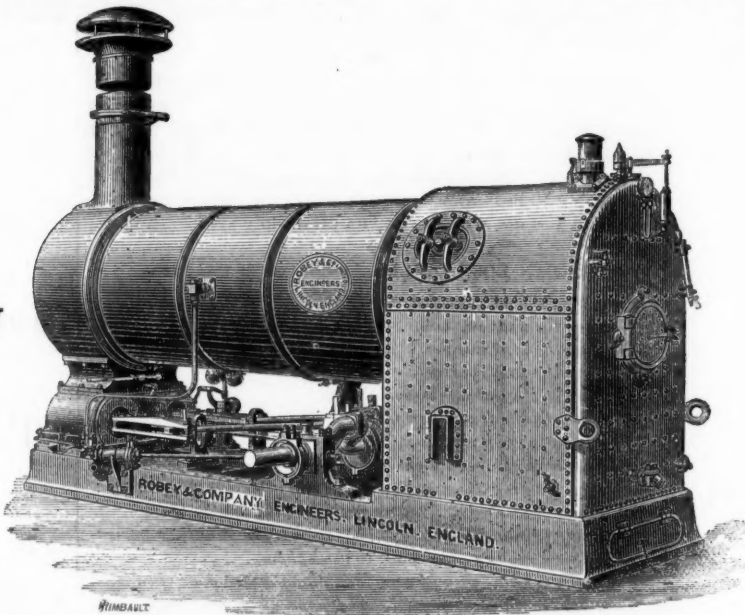
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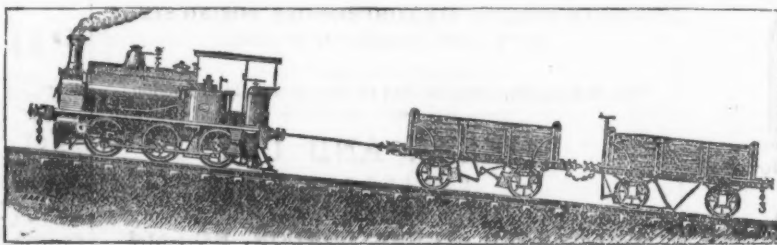
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## Original Correspondence.

## MINING IN QUEENSLAND.

SIR.—Since my last I have received the returns of Stream Tin forwarded from Murrumbidgee and Grafton during the past quarter. The total production is as follows:—

For the second quarter of 1875.			Total.		
	Stream.	Ingots.			
Warwick	Tons 1053 13 1	Tons 18 2 23	Tons 1077 12 0	4	
Murrumbidgee	439 14 1	2 6 23	442 1 0	5	
Grafton	835 2 0	—	835 2 0	26	
Total second quarter	2038 9 3	20 5 1	2054 15 1	9	
Total first quarter	2048 7 2	8 6 2	2056 7 2	14	
Total half-year	4086 17 1	24 11 3	4111 2 3	23	
Total for first half of 1874	5763 19 0	—	5763 19 0	2	

Decrease.....Tons 1852 16 0 7  
There cannot possibly be anything like this quantity held on the field for higher prices, so that we may safely calculate on a positive decrease in production during the half-year; and I can also advise you that on the receipt last week of telegraphic news of the fall in price in your market to 75¢ per ton, instructions were issued to knock off all hands in one very rich and extensive mine at Stanthorpe. No doubt many others will follow this example, as holders of rich ground can wait for better prices, but there will be still a large proportion of miners working under miners' licenses who must work on if only for "tucker," or abandon the tin washing altogether. The last drop has had more effect than I thought it would have. Stream tin is worth less than 35s. per cwt.—in fact, there are no buyers on the field that care to buy at any price. I see by the last mail's Metal Circular that there were over 4000 tons of tin received from Australia since Jan. 1. You are not likely to have more than half that quantity arrive this half-year, while it is probable that there will be large shipments from Australia to both China and San Francisco. Trial shipments to both countries have already been made, and proved successful, and they are certain to be followed up.

In other metals I have little to report. In gold the "Palmer" is still supplying large escorts. The Chinese are shipping all their gold direct to China. The reefs on the Etchbridge are proving very rich, while all the machines at Ravenswood and Charters Towers gold fields are fully employed on rich stone. Altogether the northern gold fields of Queensland are proving themselves well this season. In another three months the lucky diggers will be coming south again for the summer, while the unlucky ones must stick at it during the summer months.—Brisbane, July 30.

RESIDENT.

## THE TIN DEPOSITS OF TASMANIA.

SIR.—The opinions expressed as to the extent of the tin deposits of Tasmania are very conflicting, but there can be no question that there are plenty of properties which are well worthy of development. I am now inspecting about George's Bay and other parts of the island, and intended to have sent you a communication by the present mail, but could not get it finished in time. I have told several old and esteemed friends in England who have written to me that as soon as I had seen for myself and got reliable information I would let them have it through the *Mining Journal*. This I now hope to do by the next mail.

I may remark in the meantime that it is strange that amongst the variety of minerals discovered in Tasmania no silver ore (in the strict sense of the term) has yet been discovered there, but I am glad to find that bismuth has been discovered at Mount Ramsay in what is said to be a lode.  
The result of Prof. Liversidge's researches will, no doubt, be published in New South Wales [see letter from Sydney correspondent in last week's *Journal*] and should be made known in England. I am returning to the old address at Geelong.  
Aug. 4.

JOHN HUNT.

## ENGLISH AND AMERICAN MINE AGENTS.

SIR.—Several Americans have been in the habit of extolling themselves in the English papers as model mining superintendents—as, of late, by the letter of Mr. Powers. It is well known that the principal portion of the mines worked successfully in California and Nevada has been under the superintendence of Cornishmen; and, if an American superintendent, he has the assistance of a Cornishman as foreman. What have the American superintendents done to deserve such credit as they boast of? (no doubt done with the object of still getting larger sums out of the "Johnnies," as they call Englishmen). On the Comstock—out of the 101 mines only one is giving profits; but the poor stockholders forever assessed.

Mines here, as a rule, are not started or worked on their merits. Many worthless schemes are put on the market for the purpose of "gambling" in California-street, and to enrich the trustees who manipulate the stock. Look at the North-American Gold Mine, with its model American superintendent—630000 a year profit was promised; but, instead, the shareholders were called upon yearly for working expenses, and the property now abandoned. If this had been under an English superintendent it would be put down to want of experience. The New Almaden Quicksilver Mine is another badly mismanaged mine under a New Yorker. It ought to be paying not less than 30 per cent. per annum; but, instead, has only paid one dividend since the Barrows gave it up. So, Mr. Editor, where are the model American superintendents?  
San Francisco, Sept. 11.

A MINER.

## THE CHONTALES AND JAVALI MINES.

SIR.—In reply to a "Visitor to both Mines" in the *Journal* of Sept. 25, a reference is made to letters which appeared in the *Mining Journal* of May 29 and June 5 and 12, which contained a statement made by me as to the number of mines and quantity of ore on the Chontales property. My information I extracted from the yearly and half-yearly reports. In the half-yearly report of March 22, 1872, the manager (Mr. Belt) says—"In contrast with the small extent of our reduction works, I shall now give a brief account of the property belonging to the company on the Consuelo lode. It possesses a length of 2302 yards in the sets of Consuelo, Estrella, San Benito East, and San Benito West, on the San Antonio lode a length of 1300 yards in the sets of San Antonio and San Antonio East, and Trinidad on San Domingo lode a length of 820 yards, and on the Javali lode a length of 1440 yards in the Paron sets, making in all a length of 5862 yards of proved value of 7052 yards, or a little over four miles. There are, besides, several more sets, in which the lodes have not been tried." He continues—"It is this large and valuable property that we have been struggling to develop during the past two years." At the annual meeting, on Oct. 29, 1872, Mr. Belt, who from ill-health had retired from the management of the mines, was present, a question was asked him as to what were the resources of the Chontales Mines? His reply was that there were millions of tons, and practically inexhaustible, and that the average of the ore would be considered, from 5 to 7 dwts. per ton. That calculation included, I presume, when the Paron Mine was opened.

At the meeting, held on March 22, 1873, our Chairman gave Mr. Belt's opinion of the value of the property by stating—"If, however, the Paron Mine be opened at a future date the property, as I believe, would be second to none." This was the basis on which I formed my opinion, and it is for those who have been engaged, or are still engaged, or who have been at the mines, if the statements made by "A Visitor to both Mines" are incorrect to contradict them. During the last twelve months the Chontales Company have had difficulties to contend with not arising from the want of machinery or capital. We are told it has been occasioned from the want of sufficient labourers to supply the stamps, and from that cause the last twelve erected have been lying idle for a twelvemonth. Our last report states that the whole of the 36 stamps had worked in the latter part of the month. In January last two superintendents of labour were sent, who arrived at the mines last February, the object being to dispense with Juan Vargas, the native contractor, with whom the native labourers have not worked in harmony, and at a pecuniary disadvantage to the company. Up to the present time we are not in possession of information to what extent they have

assisted in overcoming this difficulty. At our next annual meeting, which will shortly take place, the shareholders, no doubt, will expect to have full particulars thereon, for upon the question of labour depends our future success. If we have the full advantage of the stamps, with even a low yield, a remunerative profit may be obtained to the shareholders. It is not satisfactory to continue as we have for some time, merely paying expenses at the mine and at home.—Bristol, Sept. 30.

W. B. P.

## ENGLISH AND SPANISH LEAD.

SIR.—In the *Mining Journal* of last Saturday there is letter from Mr. George Evans, and reference is made therein to the Old Comb-martin Mines, in North Devon. He says it is historically related in the neighbourhood that when it was worked a long time ago the average was 60 ozs. of silver to the ton of lead. This is certainly very high, and I do not think it is at all approached by any other mine in this country, but it is far surpassed by the Hornachos Silver-Lead Company; every parcel of ore sent from Spain by this company averages about 100 ozs. to the ton, sometimes reaching far beyond that.

M. E. W.

## BELLAVISTA SILVER AND LEAD MINING COMPANY.

SIR.—I beg of you the favour to allow me a small space in the columns of the *Journal*, in order to inform the directors and shareholders of the Bellavista Silver and Lead Mining Company (Limited) the true condition of the affairs of the said company.

Callao, Aug. 28.

CHRISTIAN VAN NES.

To the Directors of the Bellavista Silver and Lead Mining Company (Limited), London.

GENTLEMEN.—The undersigned, Superintendent of Bellavista Silver and Lead Mining Company (Limited), begs to give the directors and shareholders some information as to the state of the affairs of the said company, which can be relied upon as correct, and a true statement of the same, all of which has been communicated regularly to the managing director in London, Mr. John Harris. By the mail I have received answers from Mr. Harris, which were contradictory and unsatisfactory, which inclines me to believe that my information and accounts have never been presented to the board of directors, and gives me reason to suppose that they wish to avoid the payment of my salary for over two years past, also the sum of \$2500, which sum I advanced to the company, as will appear by the balance-sheet forwarded by me on Nov. 12, 1874, as well as by the documents which accompanied the same, all of which were forwarded to Mr. John Harris, London, managing director; and I have been obliged to take possession of the effects of the said company judicially at Bellavista, as Colonel Harris, at Callao, was unable to give me any security or pay me for my services or the money advanced to the said company.

It appears very strange to me that the board of directors should be so indifferent as to the condition of the affairs of the said company, which are in a most ruinous condition and abandoned state, which will result in entire loss or ruin of the said company, in consequence of the non-payment of the small sum due to me for my services, and the \$2500 advanced by me to the said company. I enclose with this a copy of the letter received from Mr. John Harris, and my letter to him.

The capital stock of the company being 30,0000, it appears very strange to me that the small sum due to me cannot be realised, as there has only been expended out of that sum the amount of \$12,500, or 25000, for establishing the works in the time of three and a-half years since I took charge of the works of the said company.

I would recommend that the directors should forward a commission to Peru to examine the state and condition of the affairs of the said company without delay, as I consider Col. Harris entirely incapable to manage the affairs and look out for the interests of the shareholders of the Bellavista Silver and Lead Mining Company.

CHRISTIAN VAN NES.

Bellavista Silver and Lead Mining Company (Limited).

Mr. JOHN HARRIS.—SIR: On March 27 was in my possession a copy of a letter from you directed to me, but the original I have not received till this moment. I enquire the reason. I have remarked out of the contents of this copy that not any notice has been taken by the board of directors of the advertisements which I have given in my former letters, as well as in my report principally, but only I remark a disdainful and ungrateful expression in answer to my demand for a settlement, and dismissal from my employment, for which none can be more anxious. In two years I have not received any of my salary; the whole of the past year I was obliged to maintain the company's works with my own means, and while these affairs during the last six months have been carefully abandoned, except by myself only, who has respected, and made others respect, this property, for which the board of directors as well as the shareholders owe me many thanks, besides the payment that is due to me. The indifference which I also notice in this copy has obliged me to call the intervention of the Territorial Deputy of Miners for the payment of salary and liabilities of the hacienda, for which unfavourable consequences only the directors can be responsible.

The difference you notice between my report at the beginning of 1873 and the results is clearly explained in my reports—principally in that of Nov. 12 last, wherein I prove clear enough that this difference is necessary in consequence of that between the proposals of the directors and their dispositions in the company's enterprise; so as the company not only have disposed not a farthing of the capital proposed for real works, but not entirely the interest of the capital. I have ever submitted to the orders of the company to prove my problem in figures when they judged it necessary, anticipating that the payment of my salary, as well as the liabilities justifiably charged against the company, in default of voluntary payment, which I prefer and devoutly beg from the Central Directory in London, while their local director, Col. Harris, does not pretend either a moral or a material guarantee in Peru.—Hacienda de San Jose, Bellavista, April 8.

CHRISTIAN VAN NES.

Bellavista Silver Mining Company (Limited).

SIR.—I am desired by the directors to acknowledge the receipt of your letter dated April 8, 1875, which came to hand June 14. I have by this mail sent a copy to Col. Harris, to whom I am instructed to refer you in reference to its contents. *Austinfriars, London, July 1.*

JOHN HARRIS, Managing Director.

## COLLIERS' SLIDING SCALE—No. III.

SIR.—In continuing my letter (from the Supplement to last week's *Journal*):—Now, unless there be some return to borrowed capital, it is obviously the interest of the master to cease working the coal, and to sustain a minimum loss by transferring his business to those who lent him his capital, which is a common condition under which collieries exist. It would be easy to assume a case where not only there is no profit, but a dead loss. Take, for example, P, a pit price per ton of 6s. 2d.; O, a daily output of 50 tons; and there are many small collieries held by owners a little above the colliers' rank which are in this condition.

Here P, opposite 6s. 2d. .... = 1s. 4½d.  
O, opposite 50 ..... = 0 9½

Proportional rate and profit, each ..... = 0s. 6½d.

Now, when the colliers' rate is only 1s. 6d. per ton (by which he could earn, say, 5s. a day), there would result a positive master's loss of 4½d. per ton (or, 18d. — [6½d. × 2 =] 13½d.), in which case he must stop, unless wages be reduced.

The inspection of this P, O, table shows a progressive scale, which ought to satisfy every collier that he is fairly dealt by; for, if pit prices permanently rise he obtains a larger price for his labour, and if the outputs permanently increase this price is still further augmented. Example—With a 6s. pit price (P = 1s. 3½d.), and with 120 tons output (O = 4d.), both collier and master would realise 11½d. per ton; but if prices rose 1s. per ton, then (P being 1s. 8½d.) each would gain, with the same output, 1s. 4½d. per ton, and if the output increased to (say) 200 tons (O = 2½d.), each would gain 1s. 5½d. per ton. The serious question appears to remain: How low ought the colliers' rate to descend? No one pretends that the wages of 1871 were really bad, and if, under the circumstances of the trade, 3s. 6d. a day were to be earned, it is plain that 1s. 2d. per ton might, without loss, be taken as the minimum rate to colliers, and under 6 per cent. to masters' capital. Thus with the low output of 60 tons daily, and 1s. 2d. per ton to colliers, it would be possible for masters to realise a small profit of 4d., or 1½ per cent. at the low pit price of 6s. 8d. per ton. I trust that I have thus made out a fair case for this colliers' sliding scale as being sufficiently in favour of the men.

There remain now only certain necessary stipulations to accompany the scale. The men shall be bound, while being paid by the ton, to do a certain daily quantity also, so as to ensure the master's expectation of the output whereon he has based all his calculations of contracts, profits, wages, or periods of delivery. I think that 3 tons daily should be the minimum quantity. Thus, at 3 tons average, with a pit price per ton of 7s. 6d., and an output of 120 tons daily, 40 men could cut the coal, their wages being 9½, if each man earns his 4s. 6d.; whereas, if only 2½ tons average were cut by each man, with the same output and wages, 48 men would be required, assuming a contract of constant equal daily delivery, and their wages are 10½ 16s., thus causing a loss to the master of 1½ 16s., or more than 3½d. per ton out of his fair profit of 1s. 6d. If the 2½ ton men were paid 1s. 6d. the ton, the quantity would either fall short by 20 tons, or the mine would be inconveniently filled with workers to keep up the supply, and they would be discontented with earning only 3s. 9d. a day.

Lastly, I would suggest that the pit prices and outputs of the collieries for the purpose of regulating wages shall be collected from September 1 to August 31 of the following year by duly authorised public accountants, and shall be applied separately for each district. An average district daily output shall be determined by "dividing by

all working days of a year the sum of all the outputs of coal during the year;" and an average district price per ton shall be determined by "dividing by all the sales in tons of coal during the year the sum of all the receipts for coal sold." These averages, which are to be applied locally with the use of the P, O, sliding scale, shall be computed during the current September, and a fixed rate per ton shall be certified and take effect for one year from Oct. 1 to Sept. 30 following. In computing averages of pit prices no account shall be taken of any trade expenses, commission, transport, &c. The effect of this arrangement will be to enable masters to make contracts in advance with a knowledge of the prices, and to accustom the men to the consequences of variations in the market price, or of demand, whether they be favourable or the reverse.

If the men be desirous of ascertaining precisely what are the profits of the coal trade, there is nothing to prevent their doing so but their own stupid adhesion to a system which exerts too often a greater tyranny than that alleged to be exercised by employers—a tyranny, indeed, which is plunging both masters and men into the same gulf of ruin. If, therefore, instead of being unionists, whose funds are not devoted to trade, the Union subscriptions went to form a co-operative fund, it would not be difficult to show that the working men might in ten years time possess colliery property and plant worth from 8 to 10 millions of pounds sterling, by only adhering constantly to the investment of 1s., or less, a week during that time! In fact, there would be a great probability that without violence, rancour or injury they might gain and enjoy what is now held by a few enterprising, but not prosperous, individuals or companies; the men could then regulate their own wages, take their own profits, and accuse no one in future of "grinding the blood and bones of working men to build palaces," and such like public-house fallacies which their authors ought to be ashamed to utter.

The men may take it without hesitation for granted that, "this prolonged struggle of employers not to give them what they ask is the best proof of the impossibility of its being given without ruinous results." Things are bad enough now, and the sooner the men drop Unionism and invest their savings, as their employers have done, the sooner they will learn the sweets and bitters of business, and by becoming capitalists themselves, competing in the same markets with others, will reap the benefits proceeding from their self-denial and prudent conduct, which are the foundations of all commercial success; then the "blood and bones" theory, as applied to employers, will go the way of all old bogey stories.

J. B. HUNTINGTON.

2, Barnard's Inn.

## BIRMINGHAM AND BLAKELEY HALL COLLIERY COMPANY (LIMITED).

SIR.—The letter in last week's *Journal*, signed "Pro Bono Publico," is no doubt good in its way, but whilst it pretends to give the history of this poor company's parents, birth, life, illness, and death, the writer has glided over events, matters, and things, and come to such sweeping conclusions as but few have the power to master. Now, I think, in the beginning he should have set out by describing the sum Messrs. Sheridan and Edwards gave for this valuable property to Messrs. Plant and Hughs; what they sold it for to the company; and what sum the company started with as working capital; thus showing what became of the 100,0000 raised by the sale of debentures. How the London, or first, board of directors qualified; what money each paid into the company on bonds and on shares; what sum did this board of directors cost the company; and what did each director receive. How the dividend paid to bondholders was raised; was it out of profits or capital? I have heard that all the bondholders did not have their share of it. Why not inform us how many solicitors have had to do with plucking this fat company, and what sum has been paid to each? Who has the 120,0000 paid up shares which were to take the property of the company as soon as the bondholders were paid? In whose hands are they now?

This company is poor and involved in debt, and the important all-absorbing question is, What has gone with the capital, and all the money for which the coal has been sold? No mention is made of these things, nor does he mention how it was the new board did not work well, but softly glided over it with the tenderest touch. Rumour says that Messrs. Carter, Davies, &c., did not agree with Messrs. Plant and Hughs, and that Mr. Carter, at their second meeting at the colliery, in February last, soon after the election of the new board, refused Mr. Plant certain information he had demanded from the clerk; and in unbecoming and very unparliamentary language informed Mr. Plant that he should have no information but through him and the board, &c. After which "Pro Bono Publico" should have informed us that Mr. Plant went down the pit with his friend Mr. Hughs, which was the first time since Mr. Plant sold it to Messrs. Sheridan and Edwards. When in the pit the contractor said the charter "is not enough, the slack is too little, and must have 3d. a ton more put on it." (See the reduction which followed in the letter of last week.) And why did not your smooth, knowing letter-writer tell us that Mr. Plant protested loud and long against the waste of money expended on the Robey engine, and explained its unfitness for the place, and backed his opinion with a vast number of other engineers, including Mr. J. T. Woodhouse, M.E., but all to no purpose; the engine was put in the pit, at a very great cost, in the downcast air-ways, under the direction of Mr. Davies, the certificated manager.

But why did not your valuable contributor inform us that when the new contractor went down the pit he found the gate-road in places as wide as stalls ought to be, which was a wicked act to do—that 110 yards of deep gate-roading was under water? The horses' stables were so low the poor things could scarcely stand upright, and no drainage to them; the air so hot in the works, partly through the Robey engine being in the air-way of the downcast pit, and partly owing to the air-way to the upcast pit being so close that the contractor said he could not get to the bottom to save his life. And why did he not also inform us that in the upcast pit there was no sump for the water, and for this great colliery only 5 yards of sump in the upcast pit? All these things your kind, friendly contributor softly passes by, and with charitable dust, which he throws in our eyes, proceeds to lead us to glory. It was not worth his while to inform us that when Mr. Plant requested Mr. Davies, a certificated manager, to get the other portion of the sump up, he declined doing so, and communicated with Mr. Carter, who wired him in return, stating it must not be got up, and Mr. Davies did as directed—nothing.

Why not inform us that the flues of the boilers were full of dirt and dust, consequently retarding the draught so much that it took four boilers to do the work of two? Why should "Pro Bono Publico" glide over these things, and all the other quarrels and bitter proceedings against the interest of the investors, and sum up his letter by calling on all to fall in with his views for converting bonds into shares, or they will be branded as the naughty Sunday-school boy in the Sunday-school book, if they refuse with breaking up the company? I say it is not so, the company has been strangled by bad management, and as Messrs. Carter and Davies were with the first board of directors, so they remained with the second board up to the death; and as giants used their united power and control over all things, rendering Messrs. Plant and Hughs since their election in February of no moment before the face of their workpeople. Mr. Plant, the only really practical man in the company, as far as the writer knows, felt himself so unsafe in the colliery alone that he took a police officer with him, and was unable to go down the pit through fear of being "smothered with coal," the butty having threatened him that if ever he caught him in the pit he would smother him with coal.

"Pro Bono Publico" has, no doubt, a strong charitable feeling for the widow, orphan, poor, and aged; a very proper feeling, too, but he must remember there are other views to take on this subject. Can anyone think that it is possible for any business to go right and produce good results where there is such mismanagement, particulars of which I cannot fully give, but are reported to have gone on at Blakeley Hall Colliery from first to last? I think it cannot but destroy all hope of success; and what security have we that things will be at all altered? We shall have the same place, the same board, the same engineer—in short, all the same; and, there being no



hope that the future will be better than the past, I have but one view of the whole, which is that to go on again will—in fact, must—result in loss, confusion, and bitter disappointment. If I were a bondholder I would never risk my money a day longer than I could possibly avoid in any company, partnership, or business where the past history only gives proof of bad management, of waste, and ruin. I, therefore, conclude that under existing circumstances no man will be justified in exchanging bonds for shares. No doubt the property is first-class, and of immense value; but if you cannot manage it, as it is clear there has been a great want of power, or will, sell as soon as you can, and get what you can; the first loss is, as a rule, the best. *Staffordshire, Sept. 27.* FREE.

#### OLD MINE BURROWS—THE NASCENT PROCESS, &c.

SIR,—For several years past the district of Tavistock and Gunnislake having been almost incessantly reported by amateur miners as the scene of extraordinary discoveries in silver, lead, tin, copper, and other products, the time has arrived when the practical men of the neighbourhood who, it has been said, overlooked in "blissful ignorance" these enormous sources of wealth, are fairly entitled to enquire what has been the result of these discoveries? Positive statements have from time to time appeared of old burrows teeming with silver—of an actual discovery of 100,000 tons of mineral which only required to be simply quarried away, and a multiplicity of other reports of a like nature. In the same neighbourhood extensive works have been erected, which were to yield tens of thousands of pounds profit per annum; bricks, numbering 4,000,000 per annum, would be manufactured—silver, copper, tin, arsenic, and sulphuric acid were to be produced in immense quantities, and artificial manure from Kimmeridge coal was also to be extracted, "large contracts for the delivery of which had already been entered into" (August, 1874). The extraction works, so far as the mineral department was concerned, it was also said at the above date might be seen in successful operation in an adjacent mine. On a review of these overwhelmingly tempting statements, I repeat, in the interest of the practical men whose opinions have so long been treated with studied contumely, that they may now, without presumption, it is to be hoped, reasonably enquire what has been the result of these discoveries and experiments in a commercial point of view? Referring to the standing of Capt. Knott, (of the Queen Mine), and the reliance to be placed on his judgment, I will merely quote one of his representations, which appeared in the *Mining Journal* in the year 1870, in reference to the ever-to-be-remembered Queen adventure. Speaking of a silver lode in that mine, he said it was worth from 500l. to 600l. per fathom; and, in addition to this lode, there were "five or six copper lodes, all proved, which without the slightest difficulty would return 500 tons of ore of good quality per month." *Oct. 5.* INDEX.

#### THE NASCENT COPPER PROCESS.

SIR,—I have to assure Mr. Emmens I have no desire to hide myself from any other cause than my business connection prevents me from publicly putting my name forward in any correspondence of this kind, and that I write with no other object than that the mining public may have as much information as possible upon the above subject, and that it may show what the process really is, and what it is worth. I have also to thank Mr. Barnard for his reply to my letter, and readiness with which he offers to give all the information he can.

Having made the above remarks, I will now refer to Messrs. Emmens and Barnard's last letters. First, then, I have to state that I have no desire to force from Mr. Emmens what he considers valuable professional knowledge without giving him the opportunity of receiving for it what it is worth, but I still maintain that if he can publicly prove that he can satisfactorily work low per cent. copper ores by any wet process at 12s. per ton, and this amount includes, as he states in his last letter, all the charges named in my letter published in your Supplement of Sept. 25, he will find that he has done one of the best day's work of his life, and I can assure him that there are those who are working the wet process who would at once seek his aid that they might accomplish such good results.

The difference between 12s. per ton and that actually spent in the treatment of burnt Spanish pyrites by the wet process represents an annual expenditure of about 130l., after making allowance for the excess of scrap-iron used in treating Spanish pyrites, through its containing more copper than the ore proposed to be treated by Mr. Emmens. With these facts before me I am sure your readers will require more evidence than Mr. Emmens's word before they will believe that ore can be treated by the Nascent process at 12s. per ton.

Secondly, it is absurd of Mr. Emmens offering me 1s. per ounce for any silver I may have to dispose of in conjunction with copper in the shape of argentiferous copper precipitate, as an answer to my enquiry as to who are purchasers of this article. This will be seen from the fact that argentiferous copper precipitate will not fetch as much by 1s. per unit in the market as copper precipitate free from silver. This statement is borne out by Mr. Barnard in his letter of Sept. 25, wherein he states, when referring to this subject, that Messrs. Neville, Druce, and Co. are only too happy to purchase this article at their own price—that is, they deduct 30l. per ton return charges. Then he goes on to say it is proper for the Tamar Works to purchase precipitate and separate the two metals, under the joint ideas of Dr. Emmens and myself. These statements not only prove the absurdity of Mr. Emmens's offer, but also prove what my letters have inferred—that argentiferous copper precipitate is not a saleable article for which you can obtain the full value of both metals contained therein, and that Mr. Emmens has found it out himself, although he will not admit it.

Thirdly, in referring again to the difference between the Nascent and other wet processes, I have to state that there is now no need of troubling Mr. Emmens to re-publish his letter of a year ago, although I have not the *Mining Journal* of the date referred to, as Mr. Barnard has referred me to the article published in your valuable *Journal* of Sept. 28 as giving what the Nascent copper process is. Now, in referring to this article, and my first letter correcting the errors referred to in my second, it will be seen that I had virtually stated what the process really is—i.e., roasting the ore with salt which had previously been roasted to expel the arsenic and sulphur, lixiviating the chlorides of copper and silver with hot brine, precipitating the copper and silver together with scrap-iron. Now, anyone who is acquainted with the wet process as in operation at the several works throughout the country in treating burnt Spanish pyrites will fail to see any difference between the two processes beyond the lixiviating with hot brine. Of course, everyone knows there is not silver enough in the precipitate made from the Spanish ore to be of value. Now, as to the use of hot brine as a lixiviating agent, I have to inform Mr. Emmens, &c., that this has been done in the treatment of low per cent. ore long before the date of the patent granted to Mr. Barnard for the Nascent process. I do not speak from hearsay in this matter, but from having taken down the plant that was used for the purpose, and having sold argentiferous copper precipitate obtained thereby. Now, from what I have said above, it will be seen that there is nothing new in the Nascent process, and that if there is any credit due to Messrs. Emmens and Barnard it is in the fact that they are trying to adapt an old process to the low per cent. ores of Devon and Cornwall, which in many cases contain silver in small quantities, in addition to copper. There are one or two difficulties with which they will always have to contend—i.e., the want of uniformity in the ores, and the effectual chloridising of them, or such as have all the metal easily soluble in the lixiviating tanks. They will also have to find those who can afford to give the full value represented in the copper and silver contained in their precipitate, or work out a process by which they can separate the two metals themselves. These are difficulties which Mr. Barnard admits in his correspondence in your *Journal*. I wish them success in their task, but they must pardon me for thinking it early days to blow the trumpet so loud as they are doing, and after knowing as facts that which I have stated in reference to the working cost per ton of ore in working the wet process for not believing that they can work the Nascent process at 12s.

I must leave the question of what per cent. of ore it will pay to work by the wet process for some future letter for want of time, but before closing I must thank Dr. Emmens for his very gentle-

manly suggestion that I am playing the cards of animus and ignorance. I am, Sir, your correspondent who has worked thousands of tons per annum by the wet process, and sold hundreds of tons of copper precipitate during the same space of time. C. E.

#### THE NASCENT COPPER PROCESS.

SIR,—Barnard says that great changes are about to take place at the West of England Works, Holmbush, Kelly Bray, and Redmoor. Everyone, I am sure, will hail with pleasure the re-appearance of Dr. Emmens at the head of the staff, and, if report speaks truly, Mr. T. J. Barnard will himself conduct his two patents—the Nascent copper process and his improved furnace for chloridising it. It is a pity to see the works almost idle at Redmoor, or treating only a few tons daily, but I hear that the five furnaces erected nearly a year ago are to be altered under the patent of Mr. Barnard, when 40 to 50 tons per day will be treated. I wish them every success. Capt. Knott is not very communicative, but he has told me and one or two others I know that a good profit is earned upon treating 3 or 4 tons daily with the present furnaces, and if the 3 or 4 tons can be increased to 40 or 50 tons per day, with less cost for each ton, success must follow.

The Callington inhabitants have had every opportunity of seeing the works and the process, and I know that many have paid them a visit, and have faith that good profits are now being made, but it is ridiculous treating 3 or 4 tons a-day, the profits of which at best could hardly pay the salaries of half-a-dozen agents, and keep horses and traps for them to drive about the country.

I am one of the creditors against the estate of Dr. Emmens, and want to see such a success that will admit of my getting 20s. in 1l., keep the mines permanently at work, and lastly, because of the least importance to me, benefit the proprietors, and if Dr. Emmens will only take my gratuitous advice, and cut down all superfluous expenses, and raise money by net profits, he will soon find every one ready to assist him with credit, the London capitalists will believe, and money to any extent will be forthcoming—when Callington will be yet alive and busy from the mines in the neighbourhood. *Oct. 7.* ONE OF CALLINGTON.

#### DOWSING AND DIVINING.

SIR,—Much has been said respecting dowsing and the dowsing rod, and I trust more will be said, so that the matter may be thoroughly ventilated. I am convinced there is a subtle influence (whether magnetism or what it is I am incompetent to say) which pervades the universe, entering alike into the animal, vegetable, and mineral kingdom, and what is usually termed inorganic matter and organic life are all sustained and governed by the same laws, working together in harmony and unison. Much valuable knowledge has been acquired as to its laws and mechanism, but much more remains to be acquired, and to acquire knowledge, in my opinion, we must advance. It may be that clairvoyants, spiritualists, and dowsers are advancing, and that it is my extreme ignorance which prevents me from comprehending it. We are told by some who profess to understand the art that the spirits of departed persons communicated with have not acquired any knowledge by their transition, but as they were in life their replies will show them to be still the same. If this be the case why consult them? Just imagine a practical man writing his report (say here in North Wales), and consulting his great grandmother, who lived and died in Cornwall, she being ignorant in her lifetime, and no wiser after. In my ignorance anything of the kind would be very much like going back to the days of superstition in which our ancestors lived.

As to the dowsing rod, I have during the past 30 years seen a great many experiments, and heard many wonderful stories. I remember about 23 years since, at the Pentire Glaze Mine, a miner engaged to show under which of two hats a watch was placed, he being at a distance and blindfolded at the time of its being placed. As well as I remember the hats were about 20 yards apart. Opinions among the bystanders were nearly equally divided, and bets made as to the result. The dowsing rod, however, paused at the first hat, then passed on to the second, when over it down went the rod, and the dowsing looked around with a triumphant air, but on removal of the hat both him and his backers were disconcerted, no watch was there; on removing the first hat it was found. The dowsing and his party declared that it had been where he indicated, and this proved to be true, one of the miners had cleverly changed its position, while the others were making their bets. I have seen many trials quite as ridiculous in their termination, but I never knew an instance come under my personal observation which led directly or even indirectly to the discovery of a bunch of ore by the dowsing rod. The dowsing is generally a man of nervously excitable temperament, often incapable of calmly discussing his subject, and apt to consider everyone labouring under mental darkness who do not look at a thing from his point of view. I see our friend, Capt. A. Francis, has come forward as a dowsing too, and I will endorse his opinion in one respect—that is, that the Dolgelly district is the best that could be selected for a novice. The country being full of quartz bands and patches without any particular root or direction, but which might pass for lodes in the sanguine mind of the dowsing, and I think I may venture to assert that whether he drops down himself, or the rod drops, he will be safe to find a "flat." It is not so much to find lodes alone that we require, seeing we cannot command the capital to work one-half of the known productive lodes, but to find where the ore is deposited in them, and how best to extract it. In this, however, dreamers and dowsers appear to come to the same conclusion with other men that, although they have the dowsing rod, Jacob's rod, and their great grandmothers, and other departed worthies down to Adam to aid them, they cannot tell. I should hail with pleasure any light ahead that will reveal to us the true nature of affinity, and how to make it applicable and useful in our practical vocations and daily life. C. KNEEBONE. *Pen-y-Pass, Llanberis, Sept. 29.*

#### THE DIVINING ROD—DOWSING, &c.

SIR,—In addition to the numerous previous testimonies in support of the efficacy of the dowsing rod, we have in the *Journal* of the 18th ult. that of Mr. Thomas Harvey, a gentleman of great respectability, therefore of credibility, and of considerable experience in mining and other sciences. He adduced facts, as did several of your correspondents to prove that lodes can be, and have been, in numerous instances discovered by the use of the dowsing rod, but why or how I am unable to describe; it is one of the mysteries of Nature, at least to me. I have no theory to state as the basis of my faith, which rests upon naked facts only—those given in your *Journal*, and those given me from time to time in my intercourse with mine agents and miners of unquestionable veracity. I have just opened your *Journal* of the 2nd inst., wherein is a letter from Capt. E. Skewis which, if possible, confirms my faith still more in the utility of the rod.

After all the evidence so supplied it would be absurd to look upon the practice of dowsing as a trick or a myth, as some people will persist in regarding it. The mere fact that some men have deceived by their pretended discovery of lodes by means of the rod should not be admitted as an authority for the rejection of the abundant evidence referred to. Into the philosophy of the subject I do not attempt to enter, there are innumerable operations in Nature which the most learned cannot explain, and with respect to which they have been obliged to confess their ignorance, but scientists are too proud to admit any doctrine as being true which they cannot fully comprehend. I hesitated to receive the truth concerning the dowsing rod until I had satisfactory evidence, but there are some people so stubborn in their incredulity that they will not believe a truth, even if declared by one risen from the dead.

Regarding the science—simple as it is in its *modus operandi*—as an established truth, I advise miners to use the rod in the discovery of lodes, now so much wanted—especially copper lodes—to supply the place of those which are abandoned as practically exhausted, and to supply labour for our mining community, now being reduced so very rapidly by emigration to the labour markets abroad. Every able-bodied man who leaves our shores I look upon as a deduction from our national strength, for the strength of a nation

must consist mainly of its people. During the last half-year about 15,000 of our best miners left their native county of Cornwall for America and other destinations in consequence of the abandonment of Cornish mines. Now, if by the opening up of newly-discovered lodes we can keep at home our youths rising into manhood, and induce the immigration of those who have left their families to obtain a livelihood abroad, a great boon will be gained for them and the country. Emigration has been productive of much evil; the separation of men from their wives and families has, in numerous cases, alienated their affections from them, and led to unlawful alliances, to the neglect of their families at home, who, consequently, have become chargeable on their relatives, or on the parishes to which they belong.

In all our mining parishes there are to be found women with large families entirely destitute of supplies from their husbands abroad, and from whom they have no communication whatever. The love which should be the tie between men and their wives and children either had no existence when the men left their homes, or, by absence therefrom and temptations in their new sphere, it has been extinguished. A sense of justice and right is evidently extinct also. Honour has no place in the minds of such men, and to religion, of course, there will be no pretence, unless they choose to put on the hypocrite's cloak.—*Truro, Oct. 6.* R. SYMONS.

#### THE DIVINING ROD—No. II.

SIR,—In the month of February, 1875, I mentioned the practice of dowsing to a gentleman who entertained a notion of sinking a pit or two on his farm, and he peeped-phooed the rod so terribly as to think me deranged in the "upper story," although he had never seen a divining rod, and so must have been ignorant of the mode of using it. After the lapse of a few days I told him where a professional dowsing, hired to go over this sett, told me there was a lode. He used the rod, and whilst walking on with it in his hand, laughing and joking about the absurdity of dowsing, the rod turned. He ordered a pit to be sunk, and the place marked by him was directly over the lode. He tried the rod again, and such was the effect on him as to make him actually shout, and he described it as similar to a shock from a powerful galvanic battery. This gentleman was still sceptical of the power of the rod being an index to mineral until the third lode was exposed to view; but so confident is he now of the efficiency of the rod that he would stake his existence on it.

A friend of mine, who was "unbelieving Thomas," both by name and nature, talked about the attraction of the rod overcoming the resistance offered by the hands as "ludicrously ridiculous," and would ill compare with the store of knowledge in his cranium, which must be admitted as plain as the first proposition in Euclid. An opportunity arrived, and we went one on each side of this gentleman, and instead of two hands holding the rod there were six, three on either side, and notwithstanding our most strenuous efforts to keep the rod from making an obeisance we were disappointed. Again and again three of us conjointly used the rod, and in spite of the tenacious and death-like grip slow and steady attraction forced the rod to change position. As soon as the dowsing let go we could move the rod at pleasure, but whilst his mysterious hand was on it we were as small animals before snakes, and powerless. Whilst holding the rod with him I felt a peculiar twitching of nerves at the wrist, analogous to a feeble current of electricity being imparted.

The writer has, in connection with others, sunk ten pits in the places marked by dowsing, in the mining districts of Lelant, Phillack, and Gwinear, and in only one case did we fail to intersect the lode; and there the dowsing said, prior to his commencement, "I am afraid I cannot do anything, as the stratum is the worst I have ever seen." The stratum was a blue killas, intimately associated with quartz, but out of four places marked by him three were on the course of lodes. I must add that only one of the ten lodes contained mineral in paying quantities, and that only for three months. The districts were new to the professionals.

About ten years ago I first saw a gentleman with a forked hazel twig in his hand walking to and fro over a tract of ground, and on his arriving at a certain spot the rod would invariably turn downwards, and I felt, like Moses, that that at least was "holy ground," but which thought soon fled when other persons held the rod, as the rod was suddenly bereft of good breeding, and, like Mordecai, "bowed not" in their hands, and with boyish curiosity I asked questions unsparingly, and received only one reply—"There is a lode or branch here." My enquiries as to the causes of dowsing have been attended with better results, as nearly each and every dowsing has his own opinion, two or three of which you may read.

1. A soft and fleshy hand. To this opinion I bring the fact that I know of several whose skill as dowsers is proverbial, and whose hands approximate to the same quality of softness as a smith's anvil. 2. The more crosses in the hands the greater efficiency in the art of dowsing; but to this tenet chiromancy and chiromancy raise objections, and tell us, for our consolation, that the more crosses in the palms of our hands the greater the trouble we have to bear. 3. The lines in the palms of the hands must be so numerous as to form a W. I have noticed dowsers' hands carefully, and have seen nothing uncommon about them; and one that I know has lost the greater part of his hand, and consequently holds the rod between his thumb and finger. 4. It must be the first born. This theory in the majority of cases holds good, as parties often say "My eldest brother can, or could, dowsing, and I have often thought it strange that he should be the only one of the family possessing the singular property," whereas in a few cases coming under my notice it has not been the eldest son who could boast both of temporal and physical advantages. 5. Hereditary. One of the most intelligent men with whom I have been my privilege to be associated writes as follows to the question "How do you account for it that you can dowsing and others cannot?" "I cannot account for it, save that it is hereditary. My father was a celebrity in the art." In the plurality of cases the son has not had a knowledge that the father could dowsing, and the father could in a few instances use the rod, and the son could not. 6.—Excess of iron in the blood. In this district this is generally considered the qualification, although I have heard two or three persons argue by a metaphysical, casuistic, hair-splitting mode of reasoning that the less iron in the blood the greater will be the attraction; but I leave such a subject for Dr. Richardson, after asking one question—If a dowsing has a certain number of ounces of iron in the blood, ought not the writer, who has a less quantity, to dowsing proportionately? Or is it like other liquids, must have a certain standard when used as motive power? The blood, according to Liebig, contains 20 to 21 per cent. of solid matter, of which 14 to 15 per cent. are incombustible sesquioxide of iron, forming from 17 to 20 per cent. of the ash. 7. Animal magnetism. On this subject, too, I am obliged to acknowledge my ignorance, as a personal of Dodd's Lectures will not enable me to express a conviction that dowsing is alone attributable to animal magnetism. I have also seen two or three almost miraculous cures performed by the same power, and it was upon this that I tried to build a theory, as follows. Dials and compasses are more or less sensibly affected when passing over lodes, and man, being infinitely superior to all such human productions as a magnet, by standing in such a position over the lode so that the current may pass through him, the rod points. Dagon like, to the earth, which hypothesis was further strengthened—firstly, that the kind of rod makes not the slightest difference, provided it is green; secondly, much care is necessary; and, thirdly, that 10 minutes dowsing exerts a man as much as an ordinary day's toil, in consequence of all its strength being centred in the hands. The second and third props of the theory I shall not try to substantiate, as dowsers differ about care being indispensable and also that the struggle to hold the rod in a vertical position is a little, and momentary in its effects. I think it is owing to some occult force, but little known at present; and here certainly is a field for research and investigation, now that the truthfulness of the rod has been fully demonstrated by your numerous and able correspondents.

But to the question repeatedly asked "Why cannot all dowsing?" I have sometimes replied that dowsers like "poets are born, not made;" or can you give me an explanation why the needle points north, or why cannot all mesmerism? Why cannot all perform







was set to work, the inspectors were paid, the engineers had their fees and were satisfied, but after working two or three months it was found to be a very costly experiment, and it was stopped again. We have just now completed the shaft to the 130, and shall soon set it to work, but even then we shall not be able to dispense with the old engine till Hind's shaft is made complete to the 160. I, however, begin to feel somewhat relieved, and hope I have just got to the end of this chalked course. Doubtless there has been too much of these chalked courses made by amateur miners in Cornwall. If the captain cannot steer the ship without having the course chalked out by unskilful hands, why then pitch him overboard.

I have just one other remark to make. Messrs. Hocking state I built longitudinal walls in the boiler, which were a complete failure. I did partition the tube of the boiler to try the effect on the saving of fuel during the coal famine. I should not have tried this experiment had Messrs. Hocking given me the new idea (new to me, at least) that by replacing the 50-in. cylinder with one of 60 in. diameter it would save "at least 18 tons of coal per month." In that case, in order to save fuel we have simply to increase the size of the cylinder.—*Wheal Uny, Oct. 5.* WM. RICH.

#### CORNISH MINE MANAGEMENT.

SIR.—At present there is not a little discussion afoot in Cornwall as to the duties, and powers, and privileges of the managers of our Cornish mines. In the mines worked under the Cost-book System the two principal agents are the purser and the manager—one being chief over the financial and official departments, and the other over the mechanical and operative. This seems a very good and just arrangement, for financing is very different from mining, and few men can manage both together; but as the duties of neither are clearly defined, we often find the manager arrogating supreme dictatorial power, and often dispensing with a purser and assuming full and complete authority, dismissing agents and appointing others without consulting the adventurers or obtaining their sanction. They also are not contented with the control of one mine, but are at times the servants of two or three, or even half a dozen, companies; and they almost invariably assume the management of other companies if appointed without getting the consent of the adventurers in their former mines to such a course, and consequently we hear of complaints like that of "Adventurer" in reference to Wheal Uny management. This brings us to the important question—Can a mine manager serve two or more companies at the same time, and do justice to each? We have known gentlemen who have managed more than 20 mines at the same time. Could they discharge their duties faithfully in all these mines? We think not. The success of any undertaking must greatly depend on the energy, and ability, and devotion of its officials, and where one's time is divided among various undertakings there can be no concentrated energy, and probably in such a case there cannot be that disinterestedness which is required.

But whilst all this may be true, there is another fact of equal importance that cannot be lost sight of—that if mine adventurers wish to secure the undivided attention of their manager they must give him something more than the usual rate of pay. In Cornwall managers sometimes get no more than 100*l.* per annum, and disinterested independence cannot be purchased at this rate. Tools are obtainable through friends of the brokers, but these are not managers. There is, then, an advantage in having the part service of a manager, for it is presumable that he who controls the operations of several companies is above suspicion of bullying and bearing, and being influenced in any way by merchants or brokers; and besides, he can purchase materials cheaper and sell produce dearer than the petty mine agent, because he deals in greater quantities. Notwithstanding this, however, we believe that Cornish mining would prosper better if each mine had its manager, unconnected with other concerns, uninfluenced by market operations.

In regard to the duties of a mine manager, we think that the official matters are beyond his control—that the shareholders should be consulted before the appointment or dismissal of an assistant, except in cases of gross neglect of duty, when the act of the manager should be confirmed by the next meeting. There is a disposition—and a growing one—among managers to take too much upon themselves, and such an inclination cannot be too quickly and decisively checked. It is consequent on this disposition that we have constantly recurring complaints in the Journal—the complaint of "Adventurer" before alluded to, the dispute between the manager and engineers of Wheal Uny, and the bicker at Wheal Pevor. These things do not improve public feeling as to Cornish mining, and should be strongly discouraged. The worst sides of the questions at issue, the darkest phases of mining, invariably appear when any aggrieved individual rushes into print, and we think Capt. Rich and Messrs. Hocking would have saved themselves much chagrin and annoyance had they been less hasty.

"Cornubiensis," writing in last week's Journal on the diversion of the water-course of South Carn Brea, seems to forget that the Messrs. Hocking were only the engineers at South Carn Brea, and as such could not be blamed for acting with the West Basset adventurers (on whose committee they were), and diverting the course. This matter proves, too, that the time has come for an accurate definition of the duties of mining officials, for where each one is uncertain of his position and duties, mistakes, and, perhaps, disastrous ones, are inevitable.—*Oct. 5.* EXPERIENTIA DOCT.

#### MINING IN SHROPSHIRE—PENNERLEY MINE.

SIR.—This lead mine, situated in the best Shropshire district, and moreover having part of the adjoining or touching Tankerville, seems to have been strangely overlooked by investors in good mines, the present price being no guarantee of its real worth any more than that 1*l.* represented the price of Marke Valley a few weeks ago. Now, I was present at the last meeting of Pennerley Mine. It was quite a question as to the advisability of paying a 2*s.* dividend or not. A large balance remained in hand from profits. Prudence, however, declared for no dividend, to the annoyance, perhaps disappointment, of some of the shareholders. I purchased about 100 of these shares at 6*s.* per share, but I looked well into the probabilities of an increasing value of the property, I find that this is actually a fact, but since I purchased the securities are knocked down 1*l.* per share. The return then was 80 tons per month. Great improvements have now taken place in Potter's Pit, touching the richest part of Tankerville, as stated already. No. 1 winze sinking, below the 65, has become worth no less than 5 tons of lead ore per fathom. No. 2 winze is worth 3 tons of lead ore per fathom. It is, therefore, pretty clear that we have a mine of no ordinary character, and which must rival Tankerville very shortly again. At the engine-shaft the 120 and 130 fms. levels, driving west on the lode, are expected to cut. Lastly, in the bottom of the 70 fm. level, on Warm Water lode, there are two stopes, which together produce 7 tons of ore per fathom; other parts of the mine looking well. Shareholders will do well not to part with their securities now that the property is opening out so splendidly, and as was expected. Not long since 70*s.* was the price of these shares, without the present rich development. This adventure is one of the cheapest investments in the market. Capt. Harris spoke well of it at the meeting, the Potter's Pit end being enormously rich. Several very important points are now coming off yet to add to the worth of Pennerley and looked forward to with very great interest. Again I would urge present holders not to part with, or to be cajoled out of their shares, which will be as good as Tankerville yet. SCIPIO.

[For remainder of Original Correspondence, see to-day's Journal.]

MINERS' ASSOCIATION OF CORNWALL AND DEVON.—A public meeting was held at Beacon, Camborne, for the distribution of the prizes gained by the members of the classes at the last May examinations. Mr. W. Cole Pendarves presided. Messrs. B. Kitto, F.G.S., T. S. Lowry, T. P. Povis, S. Hocking, C.E., T. D. Ewa, T. Fiddick, &c., were on the platform, and took a prominent part in the proceedings. The Chairman, in his opening address, said he was pleased to see so many persons present. He urged on the young men present the importance of availing themselves of the benefit derived from this and kindred classes. Unfortunately, the Queen's and Mining Journal prizes did not arrive in time to be distributed at the meeting, but the Miners' Association prizes were given to Messrs. E. Vine, E. Skewes, H. Vine, O. Kings, and T. J. Oats, on the secretary (Mr. T. J. Ewa) reading the names and the nature of the papers, the Chairman presenting each with suitable and encouraging remarks.—Mr. B. Kitto, F.G.S., in his remarks, stated that the class had done remarkably well, and that the teacher (Mr. Allen) had taken much pains with the class in the past, and he felt assured he would do so in the future. He urged on the miners present to attend those classes, as to them it was peculiarly interesting, and he for himself did not see why Mr. Basset's liberal prizes, and the 500*l.* boring machine prize should not be earned by a miner, as he argued nobody understood what was required as well as the miner.—Mr. T. Povis, in his speech, said he was first connected with the Miners' Association nine years ago, and the benefit derived had been of great service to him, both at home and in South America.—Mr. T. H. Allen (teacher) stated that one-third who had presented themselves for examination failed, but that this class had obtained 14 passes without a failure, and that of four first-class passes in the advanced stage of mineralogy, two, or half the whole passes of the United Kingdom, came from this class, and that one

of the class had obtained the Mining Journal prize, and was also recommended by the examiners for a Queen's Medal.—Mr. J. Hocking, C.E., in proposing a vote of thanks to the Chairman, enforced on those present the desirability of acquiring such knowledge, and that Messrs. Hocking, as men who wanted to do their duty, and thereby they gained a position.—Mr. T. S. Lowry seconded the vote of thanks, which the Chairman duly acknowledged.—This concluded a very interesting and profitable meeting.—*Western Daily Mercury.*

#### Meetings of Public Companies.

##### SIERRA BUTTES GOLD MINING COMPANY.

The eleventh ordinary general meeting of shareholders was held on Thursday, at the City Terminus Hotel, Cannon-street.

Mr. CHARLES WRIGHT (in the absence of the Chairman, Mr. L. R. Price) occupied the chair.

Mr. JOHN SAUL (the secretary) read the notice convening the meeting.

The CHAIRMAN said he hoped that in submitting the report and accounts there was no necessity for going into very great detail with regard to them, as both the report and accounts told their own tale. It was all, he thought, exceedingly clear, and, therefore, it would be simply an unnecessary taking up of the shareholders' time to go over them to any great extent. He proposed going over the main features of the mine, and in what little he said would endeavour to give the proprietors such information as would enable them to form a just estimate and opinion as to the value of the two properties. From the report it would have been seen that the amount to the credit of profit and loss account for the last six months was 21,921*l.* 7*s.* 6*d.* The board now proposed that a dividend of 2*s.* per share—5 per cent.—for the half-year should be paid. That would absorb 9750*l.*, leaving a balance of 12,171*l.* 7*s.* 6*d.* to be carried forward to the next account. Now, that appeared to be a very large amount, but the shareholders must understand that at this time of year the stores at the mine would want replenishing to a large extent to enable them to go through the winter, during which time the mines were unapproachable for any heavy goods account of the state of the roads. That expenditure would absorb 6000*l.* of the 12,000*l.* carried forward. Then the company was liable in San Francisco to the extent of 4500*l.*, which, together with the last-mentioned sum, would make something like 11,000*l.* to 12,000*l.*, which the company would really want. The shareholders were aware that their capital had been expended, and that sometimes the company had suffered in consequence. They were now, however, easy in their circumstances with regard to money, and the board thought it was to the advantage of the company that it should be so; they, therefore, hoped that the shareholders would not interfere with the arrangements that had been proposed. (Hear, hear.) He would now just refer to the amount of ore milled during the half-year. It amounted to 28,576 tons, against 27,606 tons in the half-year ending December, 1874, showing thus a falling off of 730 tons, and he regretted to say that the ore yielded only 35*l.* 4*s.* 6*d.* in the former half-year, which exhibited a difference against the present six months of 1*l.* 9*s.* 6*d.* per ton. That was a sad story, but there were causes for it which he would go into presently. The expenses had been less, as the cost of mining had been only 3*l.* 4*s.* 6*d.* per ton, against 3*l.* 8*s.* 1*d.* in the preceding half-year, so that they had saved 32 cents in mining, and all expenses had been equally less. They had spent during the period under review 994,578*l.*, against 1,015,288*l.* in the previous half-year. Now, the lesser quantity of ore milled did not account altogether for that reduction, as the difference here shown gave them a saving of 2078*l.*, whereas the falling off in the extraction of ore would only make a difference of 400*l.*, so that their expenses were really reduced. (Hear, hear.) That saving had enabled them to make a profit of 21,000*l.* in the past six months, as against 19,000*l.* in the previous half-year. The cause of the reduction in the yield of ore was serious. It might be on account of the mine, or it might be on account of the management. Looking at Mr. John's report, he found that this falling off might have arisen from the party at the mine not being so experienced in milling as he would ultimately become. The shareholders were aware that the company had lost their former man at the mine—that was their underground superintendent, and also their amalgamator, and that new men had been appointed to fill their places, and it was very reasonable to suppose they might not have the experience which such officers ought to have. Because, as Mr. John said, the saving of gold depended almost entirely on the ability and attention of the person in charge in keeping the conditions and appliances for saving gold in proper order, and this is especially so in a mill where the ore is of low grade. Under those circumstances he thought they need not despair because that for one year they had gone down in the value of the ore per ton, inasmuch as there might be other causes for it besides the mine. (Hear, hear.) In consequence of the poverty of the ore the directors had sent word to Mr. John to make an independent examination of the mine on behalf of the company, and the telegram received by the board giving the result of such examination was as follows:—"The saving of gold depended almost entirely on the ability and attention of the person in charge in keeping the conditions and appliances for saving gold in proper order, and this is especially so in a mill where the ore is of low grade." Under those circumstances he thought they need not despair because that for one year they had gone down in the value of the ore per ton, inasmuch as there might be other causes for it besides the mine. (Hear, hear.) 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word-up.  
 On winding-up, I have gone through your list of shareholders I find that it is one of the best lists I ever saw. There are nearly 250 shareholders, who from all parts of the kingdom have applied for and at the present moment hold shares in this undertaking to the extent of 105,000*l*., after deducting from the 150,000*l*. subscribed capital 45,000*l*. in shares issued free to the promoters. It is very sad that confiding shareholders should thus lose in the aggregate something like 100,000*l*. (less some arrears of calls) through the board and the manager having neglected their obvious duty of first proving the existence of the seams and the value of the property. It is a singular fact in these extensive operations that the seams which really are the laughing stock of the people in the district. That the seams of coal exist under the Ifton property there is scarcely a doubt, and if once proved, you have a property of enormous value, but instead of proving the existence of these seams in the ordinary manner your board and your manager have adopted the very steps for bringing the concern to a standstill before taking that necessary step of sinking to a very considerable depth to prove the existence of the seams. It, therefore, follows that the work they ought first to have carried out with the money subscribed for that purpose has yet to be carried out by other money which must be provided for such sinking operations. If you do not do this, all the work you have expended is a mere loss. I would now show you, if you do not mind, the nature of the winding-up I question if you would even reap the benefit of the now and well-bricked shafts which have been sunk to the 4-ft. upper seam in lieu of those shafts in use by the former lessees. It would be useless for me to enumerate here those details of expenditure which have unfortunately absorbed the subscribed capital of the company. Such details will be found by anyone who will carefully analyse the report issued by the directors, dated Aug. 15*th* 1874. Even, however, as regards that report the directors do not appear to me to have realised their true position. They say that the report of Mr. Mellor, which they annex, "must be considered highly satisfactory." But satisfaction of the shareholders cannot be obtained by the bulk of the subscribed capital had been expended in the manner that, according to Mr. Mellor, it was necessary to at once raise 100,000*l*. in debentures it is impossible for me to say. I should have thought that alarm and not satisfaction was likely to ensue on the issuing of that report. Out of this 100,000*l*. in debentures there will be required (according to Mr. Mellor's estimate) no less than 50,000*l*. for the construction of a railway in order to take your coal, when found, to the nearest existing railway.  
 In order to do this Mr. Mellor proposes to construct a tunnel 1112 yards long, and if this is attempted to be carried out I am quite certain that the railway cannot be constructed for anything less than 100,000*l*. It is, however, a question whether it is worth the cost of this preposterous expenditure. In the first place it may very fairly be asked—Of what use is your railway if you do not first prove your coal? And, in the next place, I am confident that a very cheap and easy line may be made connecting your colliery with the railway system. In doing this I would advise that you utilise as far as possible the half completed tramway to the canal, otherwise the money hitherto expended on that portion of Mr. Mellor's scheme will be entirely thrown away. It is doubtless very desirable that you should have a communication with the canal, and so far as that is concerned, the partially constructed tramway is in the right direction, and the main question in mind is whether it is worth the cost of the canal if it is often so narrow and impassable, and this would be the case just at that season when the demand for coal is most pressing. I am, however, far from saying that the tramway ought not to be completed, and that at once, for having personally examined underground the seam of coal now being worked, I am able to state that in a very short time 200 tons of coal may be raised per day from out of that seam. It is 4 ft. thick, and of very fair quality, and is readily saleable at a remunerative price. In working this seam you would, moreover, have the advantage of being able to raise the excellent fire-brick clay at that measure. At the present moment you have expended very large sums in the purchase of machinery for sinking brick, and in partially erecting buildings intended for brick-making operations, while at the same time no preparations have been made for obtaining the requisite supply of clay. The making of a good sound brick is an essential part of all colliery operations, especially where extensive sinking operations are contemplated; but although very large sums have been expended at Ifton in operations preparatory to the making of bricks, yet no one characterises these operations as being of an almost valueless character. The engine-power and the brick-machinery are, doubtless, capable, when erected, of turning out many thousands of bricks per day—according to Mr. Mellor, some 15,000 per day—but the important point of providing a space on which to lay the bricks just as they are made has apparently been altogether overlooked, and as there is no available space near the brick machine, it is clear that all that has been built there must be taken down and removed to a more suitable part of the works.  
 The bricks from this partially-erected building, together with other bricks from similarly useless buildings, can, however, be made available for sinking the 8-ft. shaft during the coming winter, while no bricks can be made, although great care must be used in selecting them, inasmuch as many of them are of the most inferior quality, and ought never to have been carted on to the works. These bricks were purchased at a brick manufacturer's sale, and you have to pay for them at Ifton at very considerable prices, and very many of them are so inferior that they are crumbling away by simple exposure. If there had been an efficient clerk of the works a large proportion would have been rejected on delivery. I have pointed out to Mr. Mellor that for the bricks required for sinking No. 2 shaft during next spring and summer an inexpensive drying shed may be provided by using the large unoccupied ranges of carpenters' shops and saw-mill sheds, and with a pair of ordinary edge runners for grinding the clay, and the use of one of the portable engines on the ground the purchase of bricks may henceforth be dispensed with. It would be exceedingly tedious to you where I go into further detail on this subject, but I am sure that if you would make the alterations I require, if you intend to get the concern into proper working order. To sum it all up, there appears to me to have been a wanton and useless expenditure of money almost from first to last; and in regard to a great deal of such expenditure, it might be said to have been incurred with large ideas, but without any method. As regards the Gobown glaze, the entire operations at which have for some time been suspended. I consider it is in some respects fortunate that the absence of funds necessitated the stoppage of works which would only have to be abandoned at a later date, and the water from an adjoining brook percolating the waste surface was used as the very last place which ought to have been stopped as the water for these two pits after sinking one of them some 21 ft. further sinking was abandoned until the necessary machinery could be erected for keeping down the water.  
 To doubt machinery could be procured which would keep the water under, but any sinking under such a rush of water would be a very expensive operation. I now state that Mr. Mellor proposes to expend 40,000*l*. in the sinking of those two shafts at Gobown, and as such sinking is not likely to be again resumed the shareholders may congratulate themselves that their present loss at that point—some 214 miles from Ifton Colliery—is somewhat less than 4000*l*., instead of being 40,000*l*., originally intended to be expended. It is, however, right that I should call your attention to the fact that the lease of the Gobown property is not under the control of the Ifton Rhyn Collieries Company. Just as in the case of Ifton Rhyn, the lease of the Gobown property was not acquired by the Ifton Company, but by Messrs. Davison, Mellor, and Co. In the case of Ifton, these gentlemen have executed a deed declaring that they hold the lease in trust for the Ifton Collieries Company, but in the matter of the Gobown lease no such deed of trust has been executed.  
 It is impossible for me to assign any reason why this has not been done, but it is my duty to call your attention to the fact, and also to express my opinion that, apart from any of the difficulties which surround the lease of Gobown, so money of the Ifton Collieries Company has been expended there until the Deed of Trust had been executed by Messrs. Davison, Mellor, and Co. However, this and many other points will, doubtless, be adjusted by the committee of investigation which I understand it is your intention to move for, and with that committee in view it is desirable I should not encumber this report with any further details.—R. S. FRANCE.  
 Mr. FRANCE added that if the directors had come forward and told the shareholders that more capital was wanted, and at the same time showed them that they already spent had been well and judiciously laid out, the shareholders would not have grumbled so readily or freely. He said that he had seen the books, and unfortunately the directors had made no such statement, and the remarks made by the shareholders were more than that their money had not been spent as

[illegible]



KIMBER, seconded by Mr. HARRINGTON, Messrs. Adamson were re-appointed auditors.

A vote of thanks to the Chairman and directors closed the proceedings.

#### CLOGAU MINING COMPANY.

An ordinary meeting of the shareholders was held at the London Tavern, on Monday, Mr. T. E. VICKERS in the chair.

Mr. PARKER (in the absence of the secretary) read the notice convening the meeting.

The report of the directors stated that the meeting would have been held earlier, but they delayed it hoping that the machinery for reducing the gold ore would have been sufficiently advanced to have enabled them to meet the shareholders at the mine. It is now nearly completed, but as some little time longer must elapse before it is in full working order, the directors do not deem it advisable to postpone the meeting any longer. The balance-sheet up to June 30 has already been in the hands of the shareholders, but as very heavy payments have been incurred since that date, the accounts of receipts and payments have been made up to the end of September 30, and are now produced to the shareholders. The balance sheet shows that there is 15,499 fully paid-up shares of £1. each (including 3000 shares allotted to Messrs. Powell and Millford as the consideration for the tack-note or agreement from the Crown); and 9501 shares upon which 5s. only has been called. Since June 30, 593 of these shares have been paid up in full, leaving 8988 shares upon which 15s. remains to be called, thereby providing a fund of £7417. to be called up, to complete the works and establish a reserve fund. By the Articles of Association provided upon these shares is only payable on the amount actually paid up, but any shareholder may pay them in full when he wishes.

The directors entered upon their duties immediately upon the incorporation of the company, and at once commenced putting down a turbine-wheel, repairing and remaking the leats and water-courses, pumping out the old workings, and repairing the roads, mine, and buildings belonging to the same. Before deciding upon erecting large machinery they consulted Mr. Charles Wright, a gentleman of great experience in gold quartz mining; they also put up four Britten pans, in order to test the quality of the lodes. Upon Mr. Wright's advice, and from the satisfactory results obtained in the Britten pans, they decided upon putting up machinery to treat ore in large quantities. The machinery erected is so fully described in Mr. Stuart's report that the directors do not deem it needful to say more than that they have consulted some of the best authorities on the subject, and have selected what they think will prove successful in treating the ore of the mine. The shareholders are, no doubt, aware that one of the conditions upon which the mine is held from the Crown is that the Vigna adit, now driven 121 fms., should be completed before Oct. 10, 1877. The difficulties experienced by the former holder of the mine was the want of ventilation, but the modern invention of rock-drills, worked by compressed air, not only overcomes this difficulty, but ensures rapid progress in the works. The drill put up for the purpose has been started, and the level will now be rapidly proceeded with. The yield of gold to the present time has been 403 ozs., which it is hoped the shareholders will agree with the directors is most encouraging.

Mr. Charles Wright reported that he had for many weeks devoted great care and attention in making himself acquainted with the merits and advantages of this valuable undertaking. He caused parcels of ore to be broken down from various lodes, which upon examination he found to produce gold in good paying quantities. Of course, in these manipulations proper and suitable machinery and skilful treatment are essentially necessary, inasmuch as without these adjuncts much of the precious metal is easily lost, which otherwise would render a good profit to the shareholders. During the period of his visit there were erected a turbine water-wheel of from 30 to 35-horse power, together with four Britten pans, of limited capacity. These have continued working with very favourable results. He can from such results now strongly advise the company to increase the reduction power, by erecting stamps for crushing 20 tons a day, and by Attwood's amalgamators and other appliances. The lodes are numerous in this property, and a large expenditure of money has been made in bringing many of them into their present forward and favourable position. The underground workings have been effected with much knowledge and judgment, so that abundance of good-paying rock can at once be secured and brought to surface. Very little timbering is required, and better or more splendidly devalued walls cannot exist in any mine; indeed, he may safely say that in his long and extensive experience in quartz mining in the United States he has never seen better. A quantity of ore is on the dump of a lower grade than has been previously worked in the Britten pans, and he believes it to be upwards of 1000 tons; this, of course, is simply an estimate, as he has no means of measuring the bulk, but he feels certain it will vary much from the quantity he has named. Even in this ore free and visible gold may be seen by careful examination. The gold, or rather the largest percentage thereof, is very fine, and well disseminated through the entire rock, with a certain percentage of sulphur, which on assay is found to be rich in gold—about 4 to 5 ozs. per ton of concentrated sulphur, together with a small percentage of copper. Near the surface, and for certain depths on all the different lodes, is found a deposit of decomposed quartz; this description of ore never fails in making good returns. After 20 years' experience in quartz mining, and in the treatment of fractions ores in the United States, he will say that what he has stated herein has been written under the firm conviction of its being fully verified in the results, and he has carefully abstained from entering into any assays' reports, which in most cases are simply theoretical.

Capt. Milford reported that this mine was taken up on his recommendation and advice, and that he assured them that when they entered into the matter they would soon find that they had a very valuable property in their possession. How this has been verified, and how valuable the property has turned out, may be judged from the returns which have been made from what is only small experimental machinery. This result is very gratifying and encouraging to them all, but to him more particularly, as it shows that the advice which he gave, and upon which they acted, has been found to be substantially correct. He has the greatest confidence in the future of the mine, and every exploration that he made in depth increases that confidence, and with a continuation of their present careful and systematic working, a great result will be achieved.

Mr. Graham Stuart, F.G.S. (reduction officer), reported that he has every confidence in the future prospects of the mine, and that the machinery now being erected will prove perfectly efficient for the purpose for which it is designed.

The CHAIRMAN said that the directors had not sent out the reports prior to the meeting because they wanted to see present as many shareholders as possible. He did not know that he could add anything to the exhaustive reports just now submitted, except it be to add that the board visited the mine on Friday and Saturday last, when they found that, although the progress with the works had not been quite so rapid as could have been wished, the tramway had been nearly laid, the stamps were tried and worked satisfactorily, and the stone-crusher would be in operation in about 10 days; some small accessories had to be added, which would take some little time to complete. He would be very happy to answer any question shareholders might desire to put, and moved that the report and accounts be received and adopted.—Mr. PARKER seconded the proposition.

Mr. KIRKPATRICK asked if they intended to put up any machinery for dressing copper ore? The CHAIRMAN said they must first get the gold machinery fully working before undertaking anything else. They preferred not undertaking too much at one time, but if they should come upon rich copper the question of working it would have to be considered.

A SHAREHOLDER asked when it was expected the stamps would go to work? The CHAIRMAN said they would get to work partly in four weeks, but not fully under six weeks.

The CHAIRMAN, in reply to further questions from different shareholders, said they were putting up four Britten pans of rather larger size, and in another place, he thought that four Britten pans would treat all their visible gold—at any rate, if they got enough visible gold to keep those pans employed they would do exceedingly well.

Capt. MILFORD, in reply to questions, stated that they had ready some 1500 tons of ore for treatment, and as soon as they had got the machinery to work satisfactorily they would soon get a larger quantity ready.

Mr. H. WILSON asked what amount of gold was being produced by the present points of operation?—Capt. MILFORD said they would produce sufficient to supply 10 heads of stamps. By stopping they could produce 40, 50, or 60 tons per day. There were two distinct sets, and some people thought there were two different lodes. At St. David's they could employ 100 men, and in other places 200 men could be advantageously employed.

Mr. ATTERBOROUGH enquired if the men were engaged upon piecework? Capt. MILFORD said they were at present upon daywork. There were 16 levels if they could work them all, and in the lowest there were at present 20 men working and stopping. There had been an immense amount of stopping done left.

The CHAIRMAN mentioned that there was an immense length of lode on surface. Mr. ATTERBOROUGH asked if the present company had broken all the ore now on the dump?—Capt. MILFORD said by far the greater portion had been broken by this company.

The CHAIRMAN said they had not had the quantity measured, but he thought Capt. Milford was well within the mark in the estimate he had made.

Mr. KIRKPATRICK had measured it himself, and he bore testimony to the correctness of the estimate.

Capt. MILFORD said he believed there were at the present time 2500 tons broken, and, if so desired, they could get out 80 tons per day with ease.

Mr. H. STAPLES enquired what amount of ore the stamps would crush per hour? The CHAIRMAN said that, judging by the stamps at Cefu Coch, the Clogau stamps ought to do nearly 2 dwts. per head each per hour.

Mr. STAPLES calculated they should reduce 25 tons per 24 hours.

The CHAIRMAN said that was the quantity the board reckoned would be reduced, although it was hoped more would be done.

Mr. ATTERBOROUGH said of course they did not anticipate the ore would average 20 ozs. per ton.—The CHAIRMAN said the board wished the shareholders to understand that the ore hitherto worked in the Britten pans had been chiefly selected ore—ore which contained visible gold—and from that they had obtained nearly all their returns. From time to time, when they had not had sufficient rich ore, the rough ore was worked; these poor ores had yielded 7 to 8 dwts. of gold per ton. He thought they might calculate that ought to be the yield of the Britten pans, exclusive of the rich. The stuff at the stamps had been tested by the Britten pans, and the quantity obtained had been 7 to 8 dwts. per ton. He did not think anything of chemical tests, as nothing less than 10 dwts. was a fair sample.

Capt. MILFORD, in reply to a question from Mr. STAPLES, said it was impossible to say what amount of ore there was which contained visible gold.

The CHAIRMAN said it was worthy of remark that the ore had improved in richness in depth.

Mr. ATTERBOROUGH said that the last shot fired on Saturday produced the finest sample of gold ever seen in this mine—beautiful rich gold.

A SHAREHOLDER asked if the balance-sheet represented the exact financial position of the company?—The CHAIRMAN said the only debts would be the cost-sheet since Sept. 30. Most of their heavy payments had now passed, and the costs, which had been 13000, and 14000, per month, would this month not exceed 5000. He thought by this month they would have cleared off all their machinery outlay.

Mr. ATTERBOROUGH said if they could only return 10 tons per day, averaging 10 dwts. per ton, the result would be satisfactory.

The CHAIRMAN said the wages since they commenced working the mine (including erection of machinery, preparing the roads, labour for tramway, &c.) had

been 30000, while the value of the gold returned had been about one-half that amount. The wages paid on construction account had been far greater than those for the mine.—Mr. KIRKPATRICK said that under those circumstances there had already been a large profit on working the gold.

The CHAIRMAN said they could have shown a profit had they so chosen.

Mr. STAPLES said that although they were a gold company and a copper company they were only prosecuting the gold enterprise. They were bound to carry on the adit, but it was a question to be settled afterwards whether they would prosecute the copper mine. For the present they should devote the whole of their energies to the gold mine, and no money should be spent upon copper except for the protection of the lease. He thought the whole district for miles around was one huge gold field. California and Australian gold miners had visited it, all of whom say there was no richer gold field than the Clogau. Until the gold mine had been brought into an established remunerative condition they should not venture upon the copper mine beyond that which was necessary to protect the lease.

The CHAIRMAN said the views just expressed coincided with those of the directors. Mr. STAPLES said he had been associated with this company from almost its commencement, and it afforded him much pleasure to testify to the valuable services rendered by the Chairman and directors.

The report and balance-sheet was received and adopted.

The retiring directors were re-elected, with the exception of Capt. Milford, who had accepted the position of manager of the mine. Mr. Attenborough was unanimously elected to the vacancy. The sum of 3000 was voted to the directors for past services, and 5000, as remuneration for the ensuing year.

A vote of thanks to the Chairman and directors was then passed.

The CHAIRMAN, on behalf of his colleagues and himself, thanked the shareholders for this vote, and more especially for the way in which the services of the board had been appreciated, and he felt confident they would all be well rewarded for their outlay in this enterprise.—The proceedings then terminated.

#### WHEEL PEVOR MINING COMPANY.

An adjourned special meeting of adventurers was held at the mine on Thursday. Mr. THOMAS PEYOR in the chair.

The CHAIRMAN stated that since the last meeting he had received a number of excellent testimonials as to the character and ability of Capt. White as a thoroughly practical miner, from Capt. Teague, of Tincroft and Carn Brea; Capt. R. Boyens, of Wheel Owles; Mr. Coulson, of Penzance; Messrs. York and Sons, of Penzance; and Mr. Kendall, and it was now for the adventurers to say whether they would confirm his appointment or not.

Capt. JAMES: Seeing that at the last meeting I entered a protest against Capt. White's appointment, perhaps it is only fair that I should say that I did not do it with any intention of reflecting on his ability in the slightest degree, but I did it because I was not allowed to use the words which were entrusted to me. But since Capt. White has been here I have been thoroughly well pleased with him. I believe that he is in every sense of the word a fit and proper person to be an agent of this mine, and I shall be very much pleased indeed to give him all the support and encouragement that I possibly can.

Mr. WARD proposed the election of Capt. White as resident agent, at a salary of 87. 8s. per month, and said: I come here to tell you plainly that although I hold a large majority of shares it is not to my interest to go against a single shareholder, even though he holds but one share, if he has anything better to propose than I have. And to substantiate my position I will read to you an abstract from a letter which I addressed to Capt. James on March 30 last, to show you whether I am affected as I have been painted in the county of Cornwall. This was long before any dispute whatever had occurred, and I then said to him—"You have a great mine before you, and I wait for a practical report (before anything further is erected), illustrating the most desirable and economical steps to be taken. Never mind my interest. Study the other shareholders, to whom every 10. of outlay is an object, and not be faint-hearted, and talk about resigning." Therefore it must be evident that I had no desire to coerce the shareholders in any way. Their interest is mine and my interest is theirs, and whether they be large shareholders or small I will work with them heartily provided that amongst them is a unity of principle and a desire to work harmoniously for the proper development of the mine. Without this it is impossible that we can go on successfully.

A short discussion took place as to whether the latter part of the resolution was practicable, it being pointed out that Capt. James was not always on the mine, and it might be found necessary to order materials during his absence.

Capt. JAMES, however, explained that as the managing agent was responsible for all expenditure the power of ordering materials of any kind ought to be vested in him, but if at any time he was away he would, of course, confer that power on the next agent.

Mr. WARD stated that when he sent the requisition to Mr. Pryor to call a special meeting he did so because on the last occasion his proxies were rejected, and his object was to disapprove of the resolution that was then passed. That matter, however, was now amicably settled, and all he had to propose was that the services of the clerk, Mr. Joseph Pryor, be continued at 5s. 6s. per month, on condition that he was daily on the mine attending to the duties connected therewith. It was highly necessary that someone should be on the mine daily to see that the coals and other materials were properly weighed in and entered in the books of the company.

The FURBER said the accounts were kept as well as those of any other mine in the county of Cornwall, and no one had the slightest reason to complain of the way in which the work was done. At the same time there could be no objection to the resolution.

A question was raised by Mr. WARD as to whether the merchants' bills could not be reduced, and also the consumption of coals on the mine. There was an interesting discussion upon the subject, but ultimately Mr. WARD said he was quite content to leave it in the hands of the manager and engineer.

A vote of thanks to the Chairman closed the proceedings.

#### THE LINARES LEAD MINING COMPANY.

The half-yearly meeting of shareholders will be held on Thursday, when the following report will be presented:—

The time has arrived for laying before you a statement of the company's financial position as it stood on June 30, and the details of the mining and smelting operations for the half-year up to that date:—

The balance-sheet shows that of the company's paid-up capital, amounting to £55,714 2 6 There has been expended on mines, buildings, machinery, smelting works, &c., less the amount written off for depreciation 46,856 0 0

Leaving as floating capital £11,858 2 6

In addition to this the company possesses a reserved fund of 32900. 17s. 5d., Three per Cent. Consols. The profit on the past six months' working has amounted to 2957. 6s. 11d.; this shows a reduction on the previous six months, which has been chiefly due to the lower price realised for the company's lead. The quantity of ore raised has been larger, as will be seen by the following comparison:—

Raisings of ore from the Pozo Ancho Mines:—  
Six months to June 30, 1875 .....Tons 1164  
Previous six months ..... 945

Increase ..... 219

The raisings from the Quinteros Mine have not varied in quantity from that of the previous six months, the production having again been 900 tons. The mines costs show an increased expenditure, taking both mines together, of 13227. 18s. 3d. This increase in the costs has to a great extent neutralised the benefit derived from the increased raisings, as far as the past half-year's profit is concerned, but as the reserves of ore at Pozo Ancho are larger now by 350 tons than they were six months ago, a substantial gain has been made on the half-year's work beyond what is shown in the balance-sheet. The reserves at both mines are as follows:—

Pozo Ancho .....Tons 600  
Quinteros ..... 1400—2000

At Pozo Ancho Mine the new explorations carried on at Peil's shaft have been attended with satisfactory results, and the prospects at this mine for the present half-year are encouraging. At the Quinteros Mine the levels for the most part have been poor, but the ore ground discovered in previous years has turned out better than had been expected, and hence the raisings of ore and the reserves have been kept up. The smelting of the ore has been carried on without interruption, and the results have been favourable. Several parcels of lead ore have been purchased during the half-year: these have been smelted at the company's works at Cordova, and have yielded a profit of 2681. 16s. 7d., as shown by the balance-sheet:—

The undivided profit on June 30 amounted to £2996 0 7

This has enabled the directors to declare a dividend of 5s. per share, which is payable on Nov. 2 ..... 3750 0 0

Leaving a balance to carry forward of ..... £ 246 0 7

#### THE FORTUNA COMPANY.

The half-yearly meeting of shareholders will be held on Thursday, when the following report will be presented:—

The directors have now the pleasure of presenting their usual half-yearly report on the affairs of the company, and of annexing for your information the audited accounts, and the mining and smelting reports, so that you may be put in possession of full information as to the position and prospects of the undertaking. The profit on the past six months has amounted to 3022. 16s. 1d.; this is a satisfactory result in view of the large sum which has been expended during that period in renewals of machinery, in sinking shafts, and in other work, involving a large outlay. Comparing the mines' costs, which include these items of expenditure for the two periods, it will be seen that the amount spent on mining works has been greater by 23700. 18s. 5d. during the six months now under review than in the preceding six months:—

Half-year to June 30, 1875 ..... £17,419 19 8  
Half-year to Dec. 31, 1874 ..... 15,049 1 3

Increase ..... £ 2,370 18 5

In the Canada Inco Mine the discovery of new ore ground has more than kept pace with the extraction—indeed, this mine has decidedly improved during the past half-year. The operations which are being carried out on the south lode at this mine are of chief promise just now. The Balidos Mine continues to produce a good quantity of ore. The most interesting section of this mine, however, is the Graciosa Pertencencia, which is situated at its eastern extremity; the lode has been very productive, and is full of promise for the future. The reserves of discovered ore are now reported to be 1500 tons. The raisings of ore during the past half-year have scarcely been so large as in the previous six months; the difference between the two periods, however, has only been 32 tons. The smelting operations have been carried on with great regularity, and with good results; full details as to the latter are given in Mr. Tonkin's smelting report. There has not been any alteration in the rates of carriage since the last general meeting. When the branch line of railway is completed, which is now being constructed from the Linares Railway Station to the town of Linares, a saving in the cost of carriage will be effected, which Mr. Tonkin estimates at 2s. per ton both on lead and coal. The balance of undivided profit at the credit of the profit and loss account has admitted of the declaration of a dividend of 6s. 6d. per share, equal to 9125., and has enabled

the directors to carry 5000. to the credit of the reserve fund; the latter now stand at 50000. The capital account of the company stands thus:—

Capital subscribed ..... £20,000 0 0  
Capital expended in mines, buildings, machinery, and plant, less the amounts written off from time to time as depreciation. 39,222 0 6  
Leaving a floating capital of ..... £10,777 19 6

#### THE ALAMILLOS COMPANY.

The half-yearly meeting of shareholders will be held on Thursday, when the following report will be presented:—

The accounts which are appended to this report will show that the profit on the past half-year's operations has amounted to 25584. 4s. 7d. This sum is not so large as was realised during the six months to Dec. 31, a result which is chiefly accounted for by the fact that the quantity of ore raised during the past half-year has been less, and the prices obtained for the lead sold have not been so favourable as in the previous six months. The raisings for the two periods were:—  
Six months to Dec. 31, 1874 .....Tons 1427 10 c.  
Six months to June 30, 1875 ..... 1385 0

Decrease ..... 42 10

Average price of the lead sold ..... 22 0 3  
Six months to Dec. 31, 1874 ..... £22 0 3  
Six months to June 30, 1875 ..... 21 14 2

The directors have recently sold lead at 22. 15s. per ton, a price which is a considerable improvement over the average sales of the past six months. The exploratory works have continued to be actively prosecuted during the half-year, and although many of the levels have been driven through unproductive ground, the reserves of discovered ore have been maintained at 2500 tons.

In the superintendent and mining agents' report, under "general remarks," the points of chief promise in the mines are fully described. It will be seen that Taylor's engine-shaft is being sunk towards the 100 fm. level, and San Victor and San Enrique shafts to the 85. The mines are thus being proved in depth with as much speed as practicable, and at the same time the levels are being rapidly extended. The smelting of the ore continues to be carried on at Cordova with good results, as to cost and produce. There has been an increase of 2s. 5d. per ton in the cost of smelting, as compared with the previous six months, but there has at the same time been a better produce of lead from the ore. The bulk of the desilvered lead made during the six months has been sold in Spain, where the price for this desilvered lead has been better than in England.

The directors have been enabled to declare a dividend of the same amount as was paid in April last—2s. per share; and they have carried the sum of 5000. to the credit of the reserve fund. The profit and loss account will, therefore, stand:—

Balance to the credit, June 30 ..... £4309 7 5  
Dividend of 2s. per share, payable Oct. 2 ..... £2500 0 0  
Set aside for the reserve fund ..... 500 0 0= 4000 0 0

Balance to carry forward to next account ..... £ 2309 7 5

The reserved fund will then stand at 35000., of which 25000. has been invested in Three per Cent. Consols, and it is the intention of the directors to invest the remaining 10000. in Consols during the present half-year.

The balance-sheet shows that of the original capital of ..... £70,000 0 0 The cost of the mines, machinery, and plant now stand at ..... 58,709 0 11

Leaving as floating capital ..... £11,290 19 1

#### WICKLOW COPPER MINE COMPANY.

The half-yearly meeting of shareholders will be held in Dublin, on Thursday, when the following report will be presented:—

The extreme depression of the iron and chemical trades during the past half-year, with the keen competition of Spanish sulphur in the latter industry, will explain why the accounts show a loss upon the operations of the period. It was found impossible to effect large deliveries of iron ore, even on foot of running contracts, owing to the stagnation of trade and the unsatisfactory condition of the chemical business, added to the competition between the sellers of Spanish pyrites, rendered it impracticable to get contracts for our sulphur ore upon acceptable terms. Although the company's sulphur mines continue as productive as ever, your directors are convinced that in the face of the present foreign competition the company cannot expect, for some time at least, to do any large trade in pyrites upon remunerative terms; your directors have accordingly made arrangements to greatly reduce the establishment charges at the mine during the progress of the competition in question, while still taking care to preserve in a thoroughly efficient condition the plant, machinery, and buildings, so as to be prepared to resume the active working of the mine on the shortest notice. In the meantime the company will have at command a very considerable quantity of sulphur ore in the workings in the North mine above the water level, which will enable them to retain, and, if possible, to extend their trade connection while waiting for better times to justify the resumption of large operations. Your directors are glad to be able to say that indications of improvement in the iron trade have begun to show themselves; and as your iron ore deposits continue to yield the ore in quantity and of good quality, the directors trust that the deliveries during the current half-year will be on a much larger scale than during the past year.

The Arklow Chemical Works still remain on hand. Your directors have taken every occasion, by advertising and otherwise, to keep before the public the fact of the works being for sale, and the willingness of the directors to recommend the shareholders to accept a very moderate price, with favourable terms of payment, from any parties prepared to carry on those extensive and permanent works, which are particularly well circumstanced for the profitable manufacture of artificial manures. The necessarily imperfect condition of the harbour of Arklow, from the want of funds to put and maintain it in proper order, having for some years past exercised a most injurious effect upon the fishing industry of the port, and having last come to be regarded as a national as well as a local misfortune, the inhabitants of the district appointed an influential committee to urge upon the attention of Government the pressing and national importance of something being done to remedy the defective harbour accommodation, and so give facilities to the large population for the successful prosecution of the fisheries. The representations thus made seem to have been met in a liberal spirit by the Irish Administration, and communications were made to your directors by the authorities to know if the company would contribute to the proposed improvement. Your directors regarding the matter as one well deserving of whatever assistance they could give, consistent with the circumstances of the company, intimated that they could make a pecuniary contribution, but would be prepared to recommend the shareholders to sanction the surrender of the company's rights in the harbour, in consideration of the amount estimated by the board of works as necessary for its effectual repair being expended. It is anticipated that a Bill be introduced next session to authorise the proposed outlay, and at the proper time the matter will be formally brought before you.

Mr. JOHN HODGE, the manager, says:—In the past half-year we considerably increased our raisings of iron ore in anticipation of a demand, but in this we were disappointed. The ore, which is of good quality, is now lying on the surface, and has not come to be regarded as a national as well as a local misfortune, the inhabitants of the district appointed an influential committee to urge upon the attention of Government the pressing and national importance of something being done to remedy the defective harbour accommodation, and so give facilities to the large population for the successful prosecution of the fisheries. The representations thus made seem to have been met in a liberal spirit by the Irish Administration, and communications were made to your directors by the authorities to know if the company would contribute to the proposed improvement. Your directors regarding the matter as one well deserving of whatever assistance they could give, consistent with the circumstances of the company, intimated that they could make a pecuniary contribution, but would be prepared to recommend the shareholders to sanction the surrender of the company's rights in the harbour, in consideration of the amount estimated by the board of works as necessary for its effectual repair being expended. It is anticipated that a Bill be introduced next session to authorise the proposed outlay, and at the proper time the matter will be formally brought before you.

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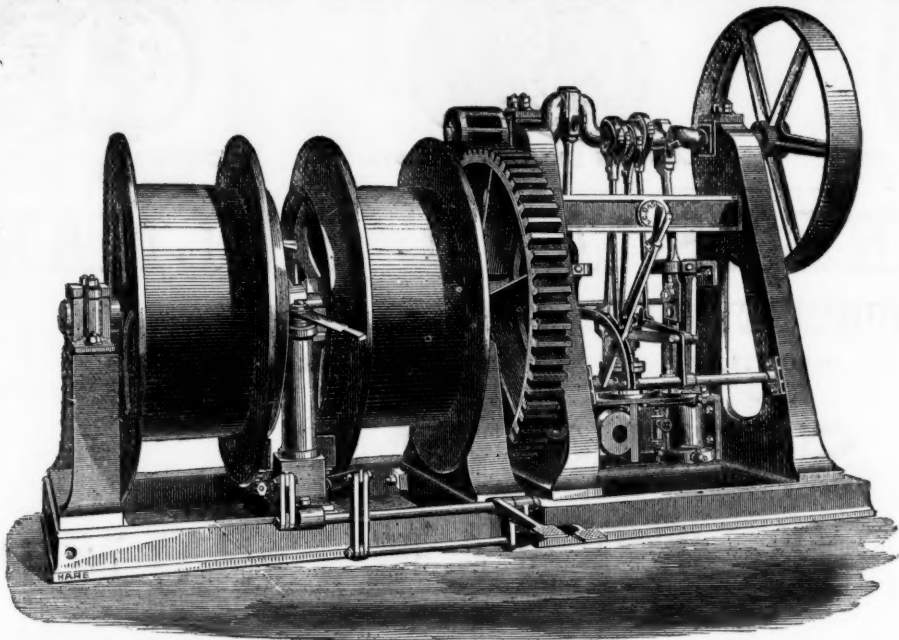
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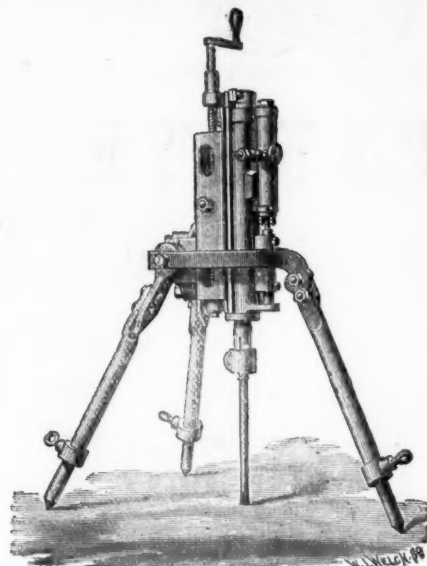
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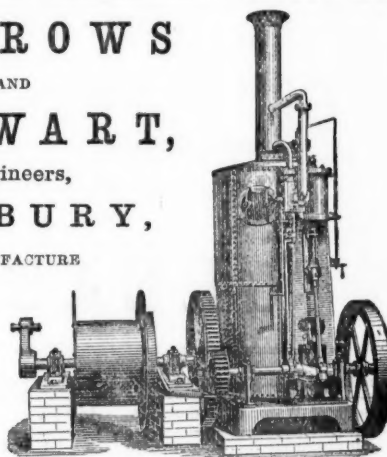
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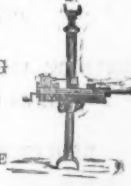
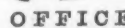
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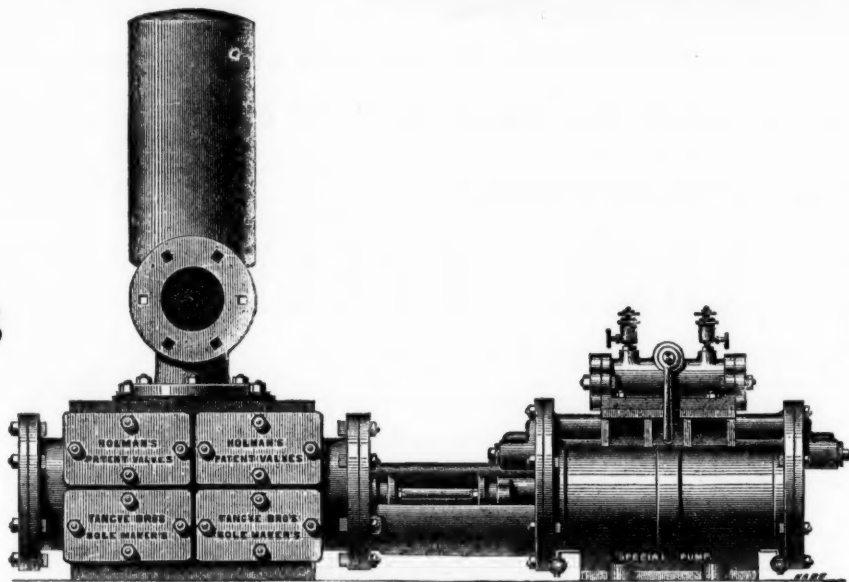
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Diameter of Water Cylinder ...In.	1½	2	3	4	3	4	5	3	4	5	6	3	4	5	6	4	5	6	7	8	5	6	7	8	9	5	6	
Length of Stroke .....In.	9	9	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	18	12	12	12	18	24	12	12	
Gallons per hour .....	680	815	1830	3250	1830	3250	5070	1830	3250	5070	7330	1830	3250	5070	7330	9750	3250	5070	7330	9750	13,000	5070	7330	9750	13,000	16,519	5070	7330
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CONTINUED.

Diameter of Steam Cylinder..In.	10	10	10	10	12	12	12	12	12	14	14	14	14	14	14	16	16	16	16	16	18	18	18	18	18	18	18
Diameter of Water Cylinder..In.	7	8	9	10	6	7	8	9	10	12	7	8	9	10	12	8	9	10	12	14	9	10	12	14	12	14	14
Length of Stroke .....In.	12	18	24	24	18	18	18	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Gallons per hour .....	9750	13,000	16,519	20,000	7330	9750	13,000	16,519	20,000	30,000	9750	13,000	16,519	20,000	30,000	40,000	13,000	16,519	20,000	30,000	40,000	16,519	20,000	30,000	40,000	30,000	40,000
Price .....	£ 55	75	90	100	75	80	85	110	120	140	110	120	130	140	160	180	140	150	160	180	200	190	200	220	240	220	240

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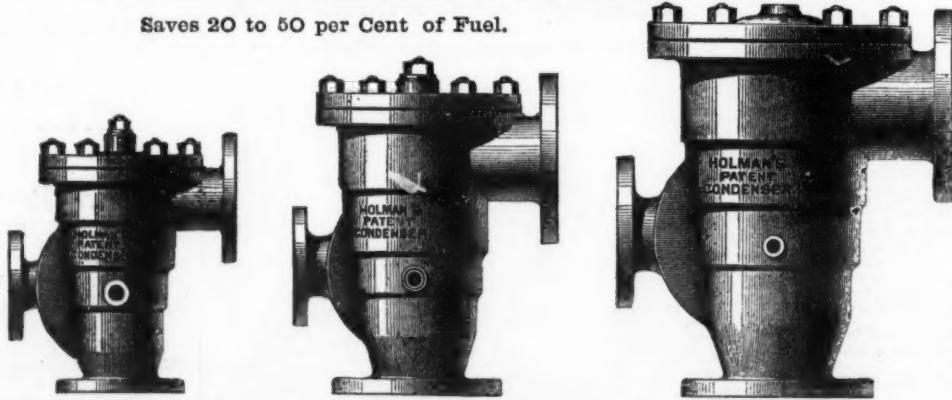
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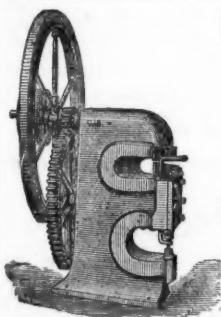
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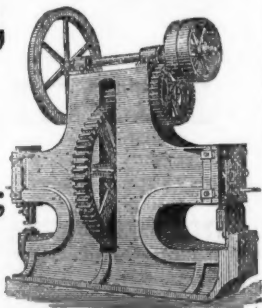
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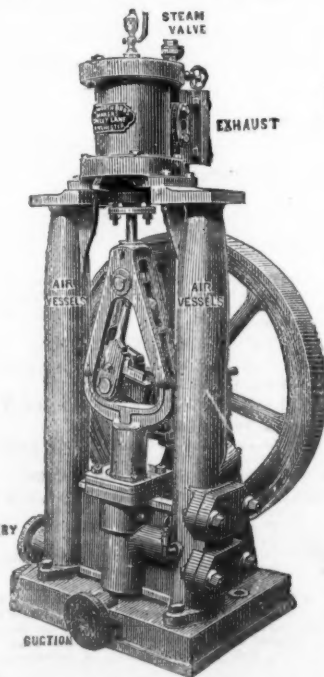
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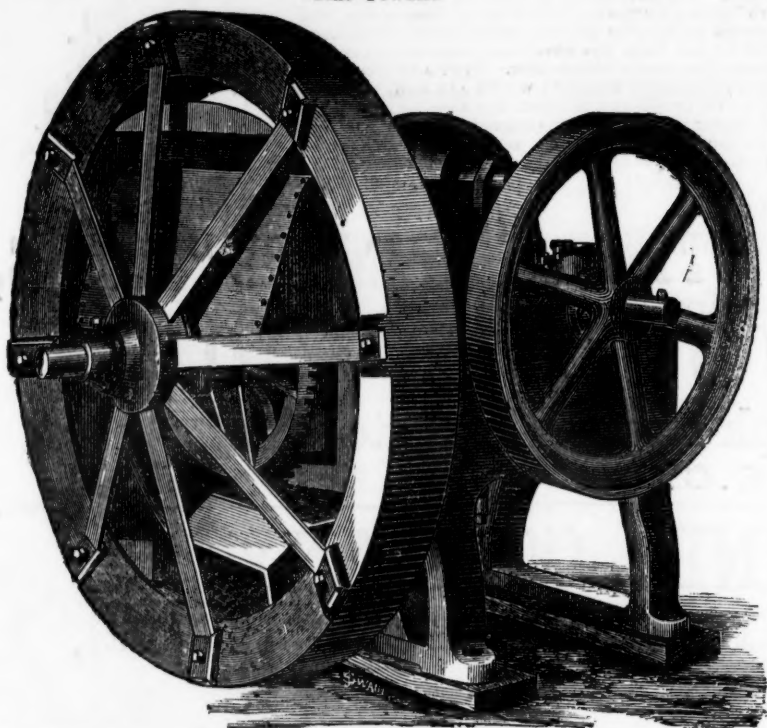
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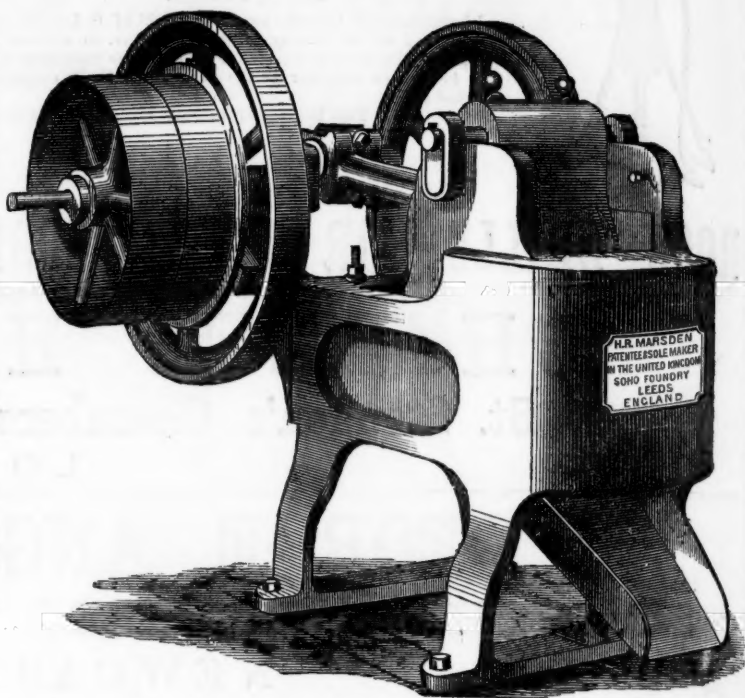


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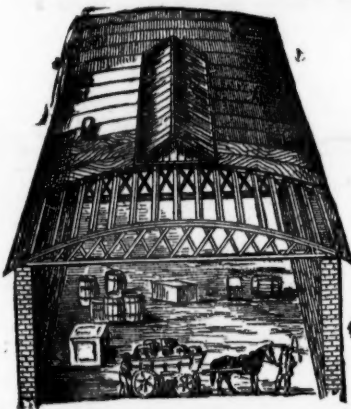
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much used for covering factories, stores, sheds farm buildings, &c., the principal  
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being covered with patent waterproof roofing felt. These roofs so combine light-  
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supports, thus not only affording a clear wide space, but effecting a great saving  
both in the cost of roof and uprights.

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